# **AVerMedia®**

# **AVer Digi** MOB1304 NET



**User's Manual** 

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THE MARK OF CROSSED-OUT WHEELED BIN INDICATES THAT THIS PRODUCT MUST NOT BE DISPOSED OF WITH YOUR OTHER HOUSEHOLD WASTE. INSTEAD, YOU NEED TO DISPOSE OF THE WASTE EQUIPMENT BY HANDING IT OVER TO A DESIGNATED COLLECTION POINT FOR THE RECYCLING OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT. FOR MORE INFORMATION ABOUT WHERE TO DROP OFF YOUR WASTE EQUIPMENT FOR RECYCLING, PLEASE CONTACT YOUR HOUSEHOLD WASTE DISPOSAL SERVICE OR THE SHOP WHERE YOU PURCHASED THE PRODUCT.

#### SAFTETY WARNING



#### **WARNING**

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



#### **CAUTION**

IF THERE IS ANY DAMAGE, SHORTAGE OR INAPPROPRIATE ITEM IN THE PACKAGE, PLEASE CONTACT WITH YOUR LOCAL DEALER. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.



#### **CAUTION**

DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



#### **NOTICE**

- INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.
- THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCT ONLY.

#### SAFETY PRECAUTION

- Refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not block the ventilation opening or slots on the cover.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Do not attempt to disassemble the appliance. To prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance. Handle the appliance with care. Do not strike or shake, as this may damage the appliance.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also cause electric shock.
- Do not use strong or abrasive detergents when cleaning the appliance body. Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings. Do not use the appliance in an extreme environment where high temperature or high humidity exists. Use the appliance at temperature within indoor type DVR for 45°C and 5°C and humidity below 90%.
- **Read Instruction**: All the safety and operating instructions should be read before the unit is operated.
- **Retain Instructions**: The safety and operating instructions should be retained for future reference.
- Heed Warnings: All warnings on the unit and in the operating instructions should be adhered to.
- Follow Instructions: All operating and use instructions should be followed.
- Cleaning: Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning
- Attachments: Do not use attachment not recommended by the product manufacturer as they may cause hazards.
- Water and Moisture: Do not use this unit near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.
- Servicing: Do not attempt to service this unit by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

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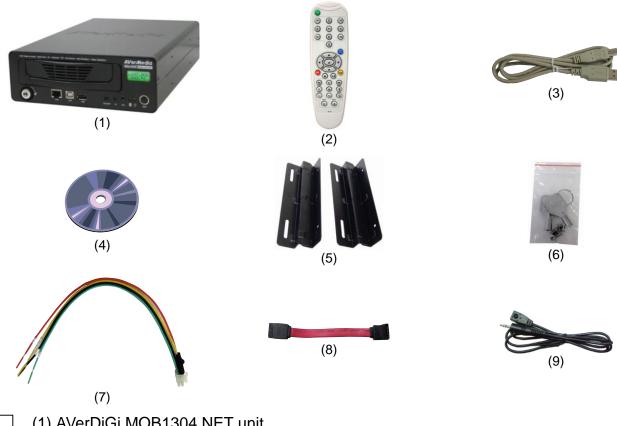
## **Chapter 1** Introduction

AVerDiGi MOB1304 NET is a 4-channel stand-alone DVR unit for mobile solution that can be installed on the vehicle for security monitoring. It provides real-time monitoring and digital recording of surveillance video. Up to 4 video cameras and 4 sensor devices can be hooked up to this DVR unit. It also provides one audio input and output channel.

DVR unit can be controlled through LCM with remote control. Also, With the On-Screen-Display (OSD) menu, user can customize video recording setting, sensor and alarm settings, password protection, hard drive recycling, and more.

Surveillance video is recorded in high-quality MPEG4 format. Three recording modes are supported; D1 Enhance mode can record video from each video camera in higher resolution at 30/25 fps and **D1** mode can record video from each video camera in higher resolution at 60/50 fps and CIF Mode can record video in lower resolution and up to 120/100 fps (NTSC/PAL).

#### 1.1 **Package Content**



- (1) AVerDiGi MOB1304 NET unit
- (2) Remote control (batteries are included)
  - \*\* image of remote control just for reference only
- (3) USB cable
- (4) Software CD (User Manual and Quick Guide are included)
  - (5) Z-brackets (Screws are included)
- (6) Removable hard disk drawer accessories (with spare screws)
- (7) Power cable (Please refer Chapter 1.4.3 for more detail)
- (8) SATA cable
- (9) An extended IR sensor cable

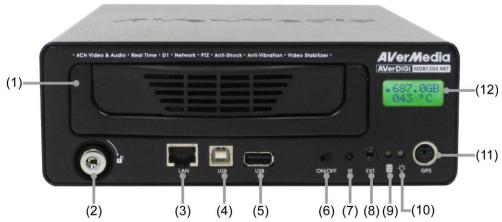
## 1.1.1 Optional Accessories



**3G USB Dongle** (for 3G function)

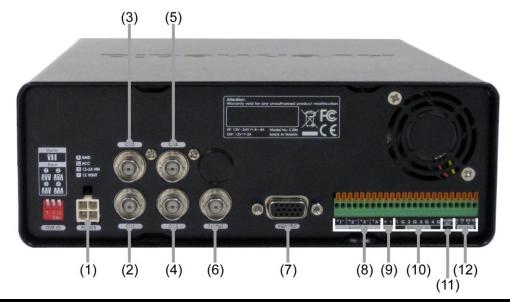


## 1.2 Front Panel



Name	Function					
(1) SATA removable HDD	For installing 2.5" or 3.5" SATA hard disk					
Drawer	The DVR unit supports hot swap of hard disk. User can unlock the hard disk key lock and swap the hard disk while the DVR unit is running. The DVR system will stop recording and shutdown hard disk when the hard disk key lock is unlocked. Remove the hard disk when the hard disk stops message display on the monitor/LCM panel.					
(2) Key lock of hard disk drawer	Lock/unlock the hard disk drawer					
(3) Ethernet port	For Internet connection					
(4) USB port	Connect to PC/NB for video backup or playback					
(5) USB 2.0 Port	- To connect pen drive / external hard disk for backup					
	- To connect mouse for OSD menu controlling					
	The pen drive/ external hard disk must be in FAT32 format.					
(6) Power switch	Power on / off the DVR unit					
(7) IR sensor	Receive signal from the remote control to operate the unit					
(8) IR sensor port	To connect an extended IR sensor cable					
(9) HDD LED	Indicate running state of the hard disk. Lights when the HDD is running					
(10) DVR power LED	Lights when the unit is on					
(11) GPS connector	To connect the GPS device					
(12) LCM display panel	- To configure DVR unit without connecting to monitor					
	- To display system status and setup message					

## 1.3 Back Panel



Name	Function				
(1) Power cable	Connecting the power cord. The power cord divide into 4 lines and each line has sticker on it for function description.				
	■ GND (Black): Power connecting negative(-)and camera negative(-)				
	■ 12V~24V(Red): Power connecting positive(+)				
	■ ACC(Green): Connect with the ACC line of vehicle				
	■ 12V Out(Yellow): Camera connecting positive(+)				
(2) CH1	Input the video camera signal and display it on channel 1				
(3) CH2	Input the video camera signal and display it on channel 2				
(4) CH3	Input the video camera signal and display it on channel 3				
(5) CH4	Input the video camera signal and display it on channel 4				
(6) Video Out (BNC)	Output the video signal to a TV(Call Monitor)				
	The DVR unit supports dual video output – Video Out and VGA Out.				
(7) VGA Out	Output the video signal to a LCD monitor				
(8) Audio In	Input the audio signal from a microphone or audio input device.				
	Microphone with its own power supply is necessary and the internal amplification must be used.				
(9) Audio Out	Output the audio signal to a speaker				
	The audio out device with its own power supply is necessary.				
(10) Sensor In	Support 4 sensor device				
(11) Alarm Out	Support 1 relay device (Relay: 1A @ 125V AC/30V DC)				
(12) RS485	For PTZ camera connection				

## 1.4 Setting Up the DVR Unit

## 1.4.1 Installing the Hard Disk

The DVR unit allows you to install one SATA hard disk.



- For hard disk spec, please referring to <a href="http://www.avermedia.com/AVerDiGi/">http://www.avermedia.com/AVerDiGi/</a> → Products
   → Mobile DVR → AVerDiGi MOB1304 NET → Hardware Recommendations
- The DVR unit support hot swapping. Therefore, user can swap the hard disk without shutdown the DVR unit.



The "compatible hard disks" indicated in the above recommendation list only means that these commercially available hard disks were tested with AVerMedia products and functioned well under normal operation conditions. AVerMedia does not guarantee or provide warranties, explicitly, implied or statutory with respect to the reliability of the hard disk function or its compatibility. In no event AVerMedia shall be liable for damages, with respect to any business interruption of clients, lost profits, loss of programs or other data on your information handling system or otherwise. This includes direct, indirect, incidental, special, or consequential damages, resulting from the incompatibility caused by the usage of these hard disks, even if AVerMedia has expressly advised about the risk of such damages. The entire risk arising out of the use of any information attached here with is borne by the recipient.

Follow the illustrated instructions below to install the hard disk:

1. Using key to unlock the hard disk key lock



2. Pull removable hard disk drawer out



Connect the SATA cable to the connector that inside 4. of hard disk drawer.



Connect another side of SATA cable to the hard disk



Connect the power connector to the hard disk. And 6.
then, put the hard disk inside the hard disk drawer
carefully. Please watch out the SATA cable when
put the hard disk into the hard disk drawer.



 Using the both hand to hold and turn the hard disk drawer over carefully. And then, adjust the hard disk to appropriate position and secure the hard disk with 4 screws on the hard disk drawer.



7. Slide the hard disk drawer back into DVR unit.



8. Using key to lock the hard disk key lock



9. You may now connect all the devices, cables, and power. When the power is connected, the Power LED light turns on

## 1.4.2 Mounting the DVR Unit

The DVR unit can be mounted in two ways. User can uses the Z-brackets (4 screws included) to mount the DVR unit as the figure below shown.

### 1.4.2.1 Installing the lower Z-brackets

1. Screwed the Z-bracket for both side.



2. Finished look



## 1.4.2.2 Installing the Upper Z-brackets

1. Screwed the Z-bracket for both side.

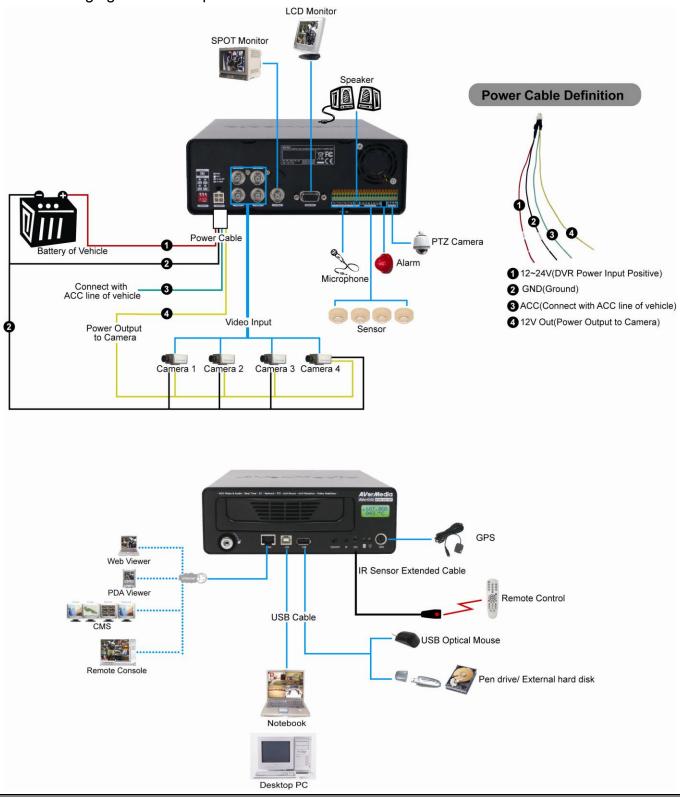


2. Finished look



## 1.4.3 Connecting Devices

The following figure is a sample of DVR unit with all devices' connection:

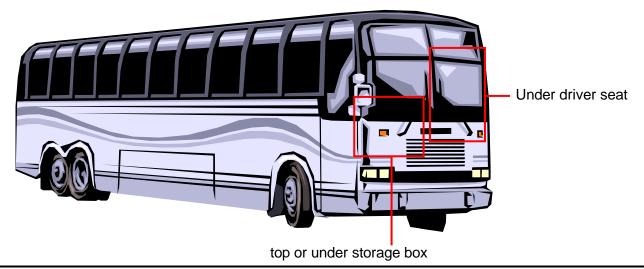




- To avoid installing the MOB DVR unit in moisture location.
- To make sure the install location provides sufficient ventilation to keep proper operating temperature between 45°C and 5°C.
- Leave a front space that is enough for sliding removable hard disk drawer in and out.
- Secure the MOB DVR unit to avoid unauthorized person to damage or tamper the unit, wires, cameras, and any accessories.

#### 1.4.3.1 Install on the Bus

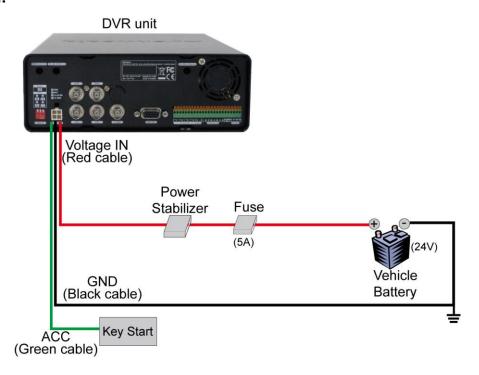
#### **DVR Install Location:**



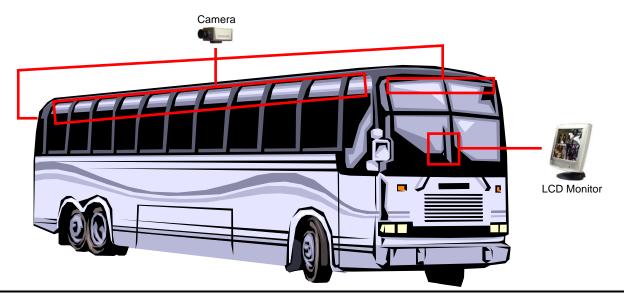


Do not install DVR unit near the door side and on the floor, those locations are high quake spot and are easily to damage the DVR unit.

### Circuit diagram:



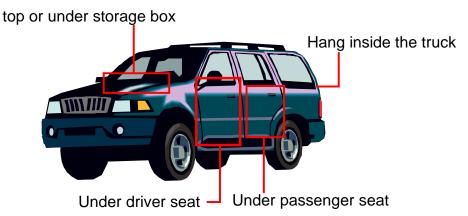
#### **Camera/LCD Monitor Install Location:**



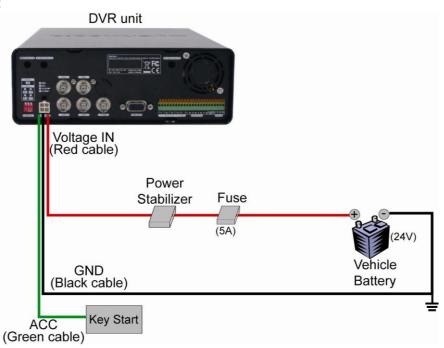
- 0
- The LCD monitor power can connect to the ignition of bus.
- The camera power is connected to the DVR camera power cable and plugs the video cable into DVR video input.

#### 1.4.3.2 Install on the Car

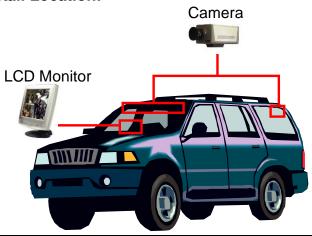
#### **DVR Install Location:**



#### Circuit diagram:



#### **Camera/LCD Monitor Install Location:**

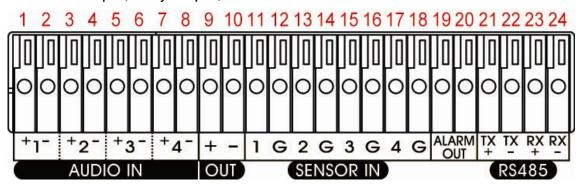




- The LCD monitor power can connect to the ignition of bus.
- The camera power is connected to the DVR camera power cable and plugs the video cable into DVR video input.

## 1.4.4 Connecting the Sensor/Relay/RS485 Device

The Sensor and Alarm ports enable you to connect (4) sensor inputs and (1) relay outputs. Just connect the external sensor and relay pin directly to the pinhole. The RS485 ports allows user to connect the PTZ camera to the DVR unit. Check the table below and locate which pinhole is assigned to sensor input, relay output, or RS485.



# 1.4.4.1 Audio, Sensor, Relay and RS485 pinhole allocation Audio in and out pinhole:

Pin#	Definition
1	Audio 1 input signal +
2	Audio 1 input signal -
3	Audio 2 input signal +
4	Audio 2 input signal -
5	Audio 3 input signal +
6	Audio 3 input signal -
7	Audio 4 input signal +
8	Audio 4 input signal -
9	Audio output signal +
10	Audio output signal -

#### **Sensor in and Alarm pinhole:**

The signal from the sensor (i.e., infrared sensors, smoke detectors, proximity sensors, door sensors, etc.) is being transmitted to the unit and this triggers the system to respond and send signal to relay device (i.e., alarm, telephone etc).

Pin#	Definition				
11	Sensor 1 signal				
12	Sensor 1 Ground signal				
13	Sensor 2 signal				
14	Sensor 2 Ground signal				
15	Sensor 3 signal				
16	Sensor 3 Ground signal				
17	Sensor 4 signal				
18	Sensor 4 Ground signal				
19	Relay signal				
20	Relay signal				

#### RS-485 pinhole:

When connect PTZ camera through RS485 interface, please refer to the following pin definition to connect the DVR and PTZ.

Pin#	DVR site	PTZ site
TX+	RS485 TX+ signal	RS485 RX+ signal
TX-	RS485 TX- signal	RS485 RX- signal
RX+	RS485 RX+ signal	RS485 TX+ signal
RX-	RS485 RX- signal	RS485 TX- signal



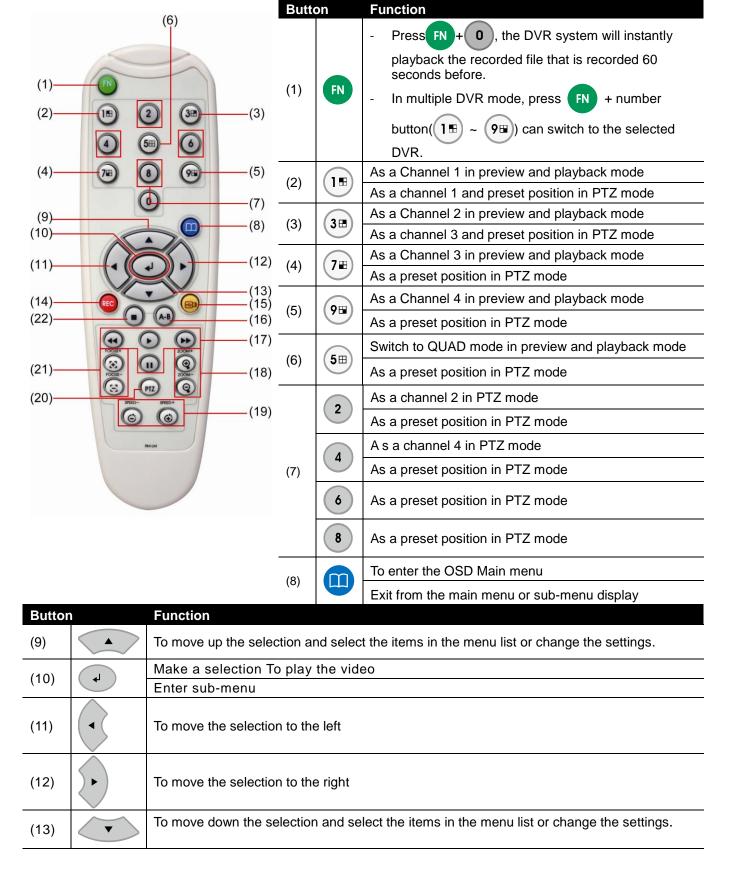
If user uses the 2 wires for the PTZ camera connection, please connect to the RS-485 TX+ and TX- of the DVR site.

## 1.5 Familiarizing the Remote Control Buttons

Use the Remote control to operate the OSD menu on surveillance screen.

Please refer to the remote control that user has got for following description of remote control functions.

## 1.5.1 New Type Remote Control



Butto	n	Function					
(14)	REC	Start video recording					
(15)	<b>₩</b>	To backup the video segment to external flash memory ( See also 1.5.4).					
(16)	A-B	Set a playing recorded video from A point to B point segment and repeat playing on surveillance screen(See also 1.5.3)					
		Fast play the video playback at the speed of 2x, 4x, 8x ,16x, 32x, or 64x					
	<b>( )</b>	When II button has pressed, and press (b) can go to next frame					
(17)	•	To start play recorded file / To enter playback menu					
(17)		Rewide the video playback at the speed of 2x, 4x, 8x ,16x, 32x, or 64x					
	•••	When II button has pressed, and press (an go back to last frame					
		Pause the playing					
(18)	ZOOM+	To zoom in view of PTZ camera					
(10)	ZOOM-	To zoom out view of PTZ camera					
(19)	PTZ  SPEED+	PTZ camera control button. Press PTZ + camera channel button(1 1 2 3 1 4 )can					
		enter PTZ mode to control PTZ camera.(see also <u>1.6</u> )					
(20)	<b>(±)</b>	To speed up movement of PTZ camera lens					
(20)	SPEED-	To speed down movement of PTZ camera lens					
(24)	FOCUS+	To focus in PTZ camera lens					
(21)	FOCUS-	To focus out PTZ camera lens					
(22)		Stop playing / Stop recording					

## 1.5.2 Old Type Remote Control

		(6)	Butt	on	Function
					Press (FN) + (0), the DVR system will instantly
			(1)	FN	
(1)	FN	DVR			playback backward the 60 seconds of the recorded file.  As a Channel 1 in preview and playback mode
(2)—	189	2 31 (4)	(2)	(15)	As a channel 1 and preset position in PTZ mode
	4	5H 6			As a channel 2 in preview and playback mode
(3)—	(7H)	8 99 (5)	(3)	(3⊞)	As a channel 3 and preset position in PTZ mode
(-)			(4)		As a channel 3 in preview and playback mode
(9)—		(7)	(4)	(7⊞)	As a preset position in PTZ mode
(10)—		(8)	(5)		As a channel 4 in preview and playback mode
(11)—		(12)	(5)	(9⊞)	As a preset position in PTZ mode
		(13)	(0)	(F)	Switch to QUAD mode in preview and playback mode
(22)— (21)—	REC SELECT	(14) (15)	(6)	(5⊞)	As a preset position in PTZ mode
	FOCUS+	DOWN ZOOM* (16)		2	As a channel 2 in PTZ mode
(20)—	FOCUS-	(17)			As a preset position in PTZ mode
(19)—	SPEED-	PTZ Q			A s a channel 4 in PTZ mode
(13)	6	0 0	<b>(_</b> )	4	As a preset position in PTZ mode
		no no	(7)	6	As a preset position in PTZ mode
		18)		8	As a preset position in PTZ mode
Buttor		Function			
			ded v	ideo fro	m A point to B point segment and repeat playing on
(8)	A-B	Set a playing recorded video from A point to B point segment and repeat playing on surveillance screen(See also <u>1.5.3</u> )			
(9)	II	Pause the playing			
(10)		To play the video			
(11)		Decrease the video	playb	oack at	the speed of 2x, 4x, 8x, 16x, 32x, or 64x
(12)		Fast play the video playback at the speed of 2x, 4x, 8x, 16x, 32x, or 64x			
(13)		Stop playing / Stop re	cordir	ng	
(14)	الجا	USB backup(see also	) <u>1.5.4</u>	<u>l</u> )	
(15)		To move the selection to the left and right			
		To go up and down and select the items in the menu list or change the settings			
(16)		To enter the OSD Main menu / Exit from the main menu or sub-menu display			

Butto		Function		
(17)	ZOOM+	To zoom in view of PTZ camera		
(17)	ZOOM-	To zoom out view of PTZ camera		
(18)	PTZ camera control button. Press PTZ + camera channel button(1 1 2 3 1 4 )can enter PTZ mode to control PTZ camera.(see also 1.6)			
(40)	SPEED+	To speed up movement of PTZ camera lens		
(19)	SPEED-	To speed down movement of PTZ camera lens		
(20)	FOCUS +	To focus in PTZ camera lens		
(20)	FOCUS -	To focus out PTZ camera lens		
(21)	4	Make a selection		
(21)		Enter to configure mode of selection		
(22)	REC	Start video recording		

## 1.5.3 Using AB Segment Function

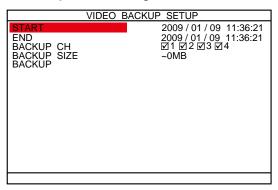
AB segment function allow user to set a video segment from A to B point and play on the surveillance screen until user stop. User also can backup AB segment video file to pen drive or external hard disk (see also 1.5.4).

- 1. Press (play) to call out the **SEARCH MODE** menu to find the recorded video that user wants to playback.(see also 2.3)
- 2. Select TIME SEARCH, FILE LIST, or SMART MOTION SEARCH.
  - TIME SEARCH: search by date and time
  - **EVENT LIST**: search by condition
  - SMART MOTION SEARCH: search by motion event
- 3. During the playback, press (A-B) to set the A point of video segment. And then, press (A-B) again to set the B point of video segment. On the surveillance screen will display "A-B" and repeat playing the AB point video segment which user has set. To cancel AB segement, press (A-B) again.



## 1.5.4 Using USB Backup Button

User can press button to backup the AB segment video file.



- 1. Set the AB segment video (see also <u>1.5.3</u>).
- 2. Plug in pen drive or external hard disk to DVR system.
- 3. During the AB segment video playback, press button.
- 4. Select the **START** time of backup time by pressing the button, using and to setup the date and time. To confirm the value or selection, press.
- 5. Select the **END** to set the end of backup time. Press and use and to setup the date and time. To confirm the value or selection, press .
- 6. Select the **BACKUP CH** to setup the channel that user wants to backup. Press and use and to select the channel.
- 7. Select the **BACKUP SIZE** to calculate the total size of backup file.
- 8. Select the **BACKUP** and press  $\checkmark$  to start backup.
- 9. When backup confirm message appear, press (YES) to start backup file or press (NO) to exit backup mode.



- If the external hard disk is first time using, please format to FAT32 format.
- The external hard disk needs to be powered by external power.

## 1.6 Controlling PTZ Camera

Using remote control, user can easily control PTZ camera at local site. Before starting, please go to OSD menu to enable PTZ control (see <u>3.1 Menu Function: PTZ Setup</u>).

#### 1.6.1 To Enter the PTZ Mode

To control PTZ camera, user need to enter the PTZ mode first. Press PTZ button, and camera channel number button (1 2 3 4). The surveillance monitor will switch to single screen and display "PTZ mode" on the screen.



To exit PTZ mode, press PTZ and D button. Also, when user doesn't have any action over 1 minute, the system will automatically exit PTZ mode.

#### 1.6.2 To Set Preset Position

User can set 9 preset positions for PTZ camera. Using 15 to 95 button to set the preset position.

- 1. Press PTZ and camera channel number button ((1111 2 (3111 4)) to enter PTZ mode.
- 2. Using , , and to adjust the PTZ camera to the position that user wants.
- 3. Press any number button over 3 seconds and the position will be saved.
- 4. To move the PTZ camera to preset position, just press the number button.

#### 1.6.3 To Control PTZ Camera

To move, adjust focus, and zoom in/out camera lens can be done by using some function buttons on the remote control.

- To move the PTZ camera lens to the right
- To move the PTZ camera lens to the left
- To move the PTZ camera lens to go up
- To move the PTZ camera lens to go down
- To zoom in PTZ camera
- To zoom out PTZ camera
- To speed down movement of PTZ camera lens
- To speed up movement of PTZ camera lens
- To focus in PTZ camera lens
- To focus out PTZ camera lens

## **Chapter 2** Operating the MOB1304 NET

## 2.1 Using the MOB1304 NET for the First Time

For the first time using the DVR unit, suggest user connect with the LCD monitor and setup DVR unit by using remote control. Once the DVR unit has been set up, user can operate the DVR unit through the remote control and LED panel that is located front panel of DVR unit.

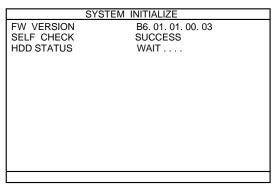
Following the below steps for first time setup.



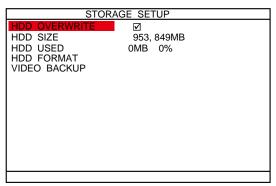
The hard disk drawer must be locked in order for DVR system to detect the hard disk when DVR system starts up.

The default login ID is ADMIN(case sensitive) and default password is 111111.

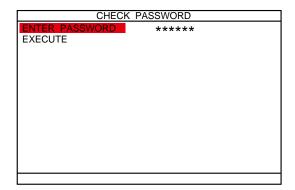
- 1. Make sure all devices and power cables are well connected.
- 2. Turn on the DVR unit by switching the On/Off switch to **ON**.
- User should see the SYSTEM INITIALIZE window appear on the surveillance screen. User
  can see the current firmware version of the DVR system. The system will do the self checking
  and hard disk detection.



4. When the hard disk has been detected, the **STORAGE SETUP** windows will appear on the surveillance screen.



- 5. For the first time use hard disk, please format the hard disk. Using and to go up and down and press to make a selection. Select **HDD FORMAT** and press to enter HDD format screen.
- 6. To format the hard disk, the password (default password is **111111**) is required. Press and use and to enter the password. When is done, select **EXECUTE** and press to start formatting.



- 7. When hard disk format is done, please adjust the system date and time in order to have the correct recording date and time.
- 8. Press ☐ to call up the OSD menu, and then, use ☐ and ☐ to select **SYSTEM** → **DATE/TIME** and press ✓ to make a selection.
- 9. Press and use and to select the **DATE FORMAT**.
- 10. And then, adjust the **DATE** and **TIME** by using to make a selection and using and to adjust the date and time.
- 11. When is done, the DVR system is ready to record.

#### 2.2 Surveillance Screen

This chapter will describe the symbols on the surveillance screen and screen display mode. While DVR is playback, the record action will still working and the surveillance screen will display the playback video.



Surveillance Screen

#### Preview Mode

Symbol	Description
	DVR is recording
Ф	Audio is enabled
•	Speaker is available
*	Motion recording
<b>HDD</b> 5%	Hard disk capacity
<b>U</b> SB	USB device is plugged

#### Playback Mode

Symbol	Description
	Playback the recorded video
₫	Audio is enabled
A-B	AB segment is set and playing
<b>«</b>	Recorded video is playback at backward speed(2x, 4x, 8x, 16x, 32x, or 64x)
<b>&gt;&gt;</b>	Recorded video is playback at faster forward speed(2x, 4x, 8x, 16x, 32x, or 64x)
Α	Always Recording
В	Button Recording
L	Alarm Recording

User can switch to display each channel in full screen or 4 channels in D1, D1 Enhanced, or CIF record mode.



Full Screen Mode



QUAD Screen Mode

When you are in full screen preview, press the following buttons on the remote control and control panel to switch to different channel, or preview all 4 channels:



3⊞

7⊞

9⊞

5⊞

CH1: Camera 1

CH2: Camera 2

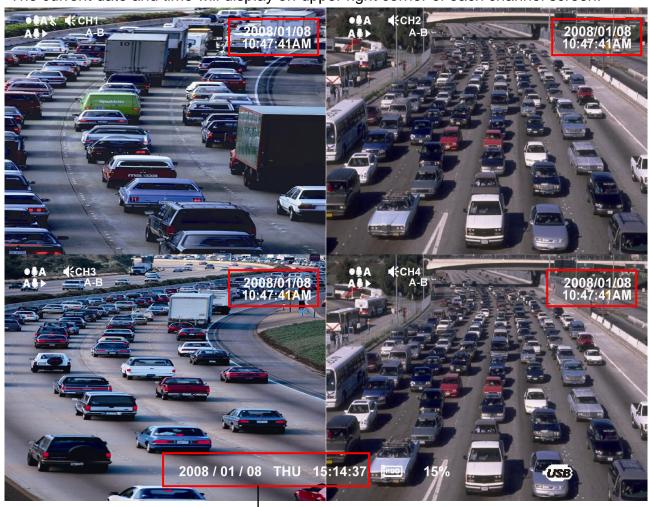
CH3: Camera 3

CH4: Camera 4

QUAD:4-Channel

By enabling **TIME STAMP** function, current date and time could be displayed on each channel screen to verify the recording date and time. Please follow the below steps to enable **TIME STAMP**.

- 1. Press (III) to call out OSD menu.
- 2. Using and move the highlight to **CAMERA/REC** and press to make a selection.
- 3. Select **GENERAL** and press to make a selection.
- 4. And then, select **TIME STAMP** by pressing button.
- 5. Using and to select the disable/enable of TIME STAMP and press or to confirm.
- 6. Press (III) to exit from OSD menu.
- 7. The current date and time will display on upper right corner of each channel screen.



DVR System current date and time

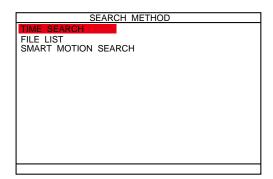
## 2.3 Playback the Video

To playback recorded video, user doesn't need to stop recording. DVR system supports recording and playback simultaneously.

## 2.3.1 To Playback Video



2. Use the and buttons to go up and down and select TIME SEARCH, FILE LIST, or SMART MOTION SEARCH. And then, press 4 to make a selection.



TIME SEARCH

#### TIME SEARCH (search by date and time):

- In TIME SEARCH window, the START TIME and END TIME show the date and time from when the recording begins and ends.
- 2. Press and use the and buttons to set the SEARCH TIME.
- 3. After SEARCH TIME has set, select **SEARCH EXECUTION** and press to start searching.
- START TIME: 2009/01/09 11:36:21 TIME: 2009/01/09 11:36:21

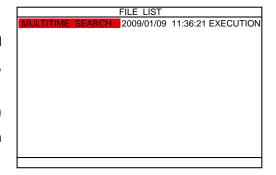
  SEARCH TIME 2009/01/09 11:36:21

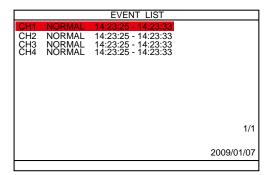
  SEARCH EXECUTION

4. When the playback file is found, the DVR system will start playback automatically.

#### FILE LIST (search by condition):

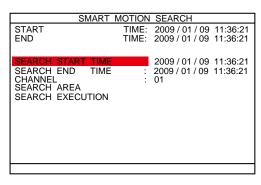
- 1. In FILE LIST window, press and use the and buttons to set the date and time for searching. And then, select the **EXECUTION** to start searching.
- 2. The searching result will be list out. Using the and buttons to go up and down and press to make a selection.
- 3. After make a selection, the **EVENT LIST** of each channel will list out. Use the \_\_\_\_\_ and \_\_\_\_ buttons to the selection and press \_\_\_\_\_ to make a selection.
- 4. The selected event will start to playback.





#### **SMART MOTION SEARCH** (search by motion event):

- In SMART MOTION SEARCH window, the START TIME and END TIME show the date and time from when the recording begins and ends.
- Use the and press to set SEARCH START
   TIME and SEARCH END TIME for searching period.
- 3. Then, Select the **CHANNEL** that wants to set search area.



- 4. And then, select **SEARCH AREA** to mark an area to search. Use the , , , and to move the block and press to confirm. To exit, press .
- 5. To start searching, select the **SEARCH EXECUTION**.
- 6. When the playback file is found, the DVR system will start playback automatically.



**SEARCH AREA SETUP SCREEN** 

Listed below are the symbols of recording condition that will display on surveillance screen while playback mode and record mode:

A - Always Recording

It records non-stop and automatically continue recording when interrupted.

L - Alarm Recording

It records when the alarm has activated.

**B** – Button Recording

It records when the **REC** record button is pressed.

N - NO Recording

It doesn't record at all

The " > " play symbol would appear beside the channel number when you are in playback mode.

## 2.4 Using the GPS Function

MOB DVR supports GPS that GPS data can be recorded and views the actual location by using Google Earth.

## 2.4.1 Installing the GPS Device

User needs to install the GPS device on MOB DVR in order to receive the GPS data. GPS device is an optional accessory, please contact with your local dealer for purchasing.

Following the below steps to install the GPS device on MOB DVR.

1. Plug the GPS connect cable into the GPS connector that is located on front panel of the MOB DVR.



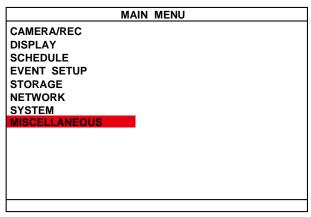
2. Placing the GPS device on the MOB DVR or on the place that user wants. The bottom of GPS device has magnetism can stable attach on MOB DVR.



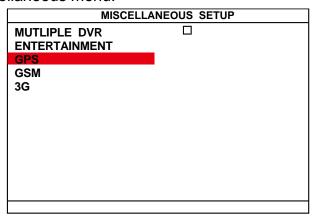
## 2.4.2 Enabling the GPS Function

GPS must be enabled in order to receive the GPS data. Following the below steps to enable the GPS function on the MOB DVR.

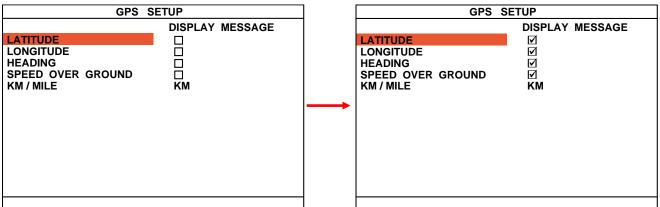
- 1. Press or use mouse right-click on the screen to call out the OSD menu.
- 2. Select the Miscellaneous from Main menu.



3. Select GPS from Miscellaneous menu.



4. Enable the data that user wants to receive and select unit of the distance (KM or Mile). To enable the selection, press and to mark and un-mark the selection. To confirm the selection, press User also can use mouse click the selection and use the roller button to make a selection.



5. Press or use mouse left-click on the screen to exit from OSD menu. The GPS configuration is completed.

## 2.4.3 Viewing the GPS Information

There are several ways to view the GPS data – in preview mode, WebViewer, UPC, Google Earth, Remote Console, and CMS.

#### Preview Mode

After GPS has enabled, user should see the GPS data display on the preview screen. GPS data will change when receive the new data.



#### ■ WebViewer

User also can view the GPS information on the WebViewer through the internet. Open the browser on your PC and enter the IP address of the MOB DVR. The detail of WebViewer, please refer to <a href="Chapter 8">Chapter 8</a>. The coming GPS information will keep scrolling on the WebViewer UI.



#### USB Playback Console

The recorded file that contains GPS data can be view when playback on USB Playback Console (UPC).

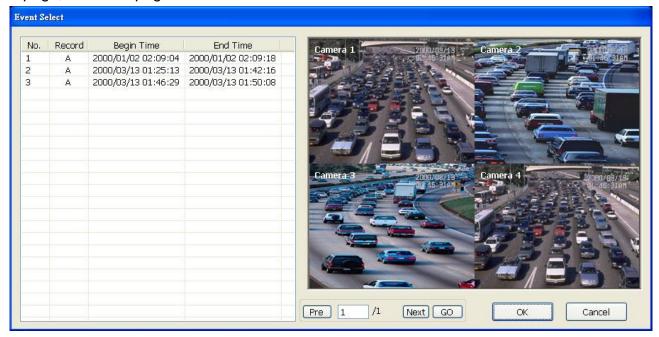
- 1. Connect the HDD that contains recorded file from MOB DVR to your PC
- 2. Install the **UPC** application from the Software CD on your PC.
- 3. Run the UPC and select DVR Recorded File(HD) from Disk Select and click OK.



4. Select the hard disk drive from **Select Disk** window and click **OK**.



5. The Event List windows will appear and list all recorded file. Select the file and preview the selected file video. And then, click **OK** to start playback on UPC. To go to next page of recorded file list, click **Next**. To go back to previous page, click **Pre**. To go to the specific page, enter the page number and click **GO**.



The selected file will playback on the UPC and GPS will be seen while playback.

#### ■ Google Earth

- 1. By using Google Earth, user can view the video segment that has contains GPS data save in \*.KML format from UPC.
- 2. Install the Google Earth at <a href="http://earth.google.com">http://earth.google.com</a>.
- 3. Playback the recorded file from hard disk that is containing of recorded video data of MOB DVR(see also Chapter 4.3.2)



The recorder file must contain GPS data in order to save in \*.KML format and view on Google Earth.

- 4. During the playback, select a video segment that user wants to save in \*.KML file format (see also Chapter 4.3.1)
- 5. Click **Export** and select **Export KML** to save the video segment in \*.KML format.



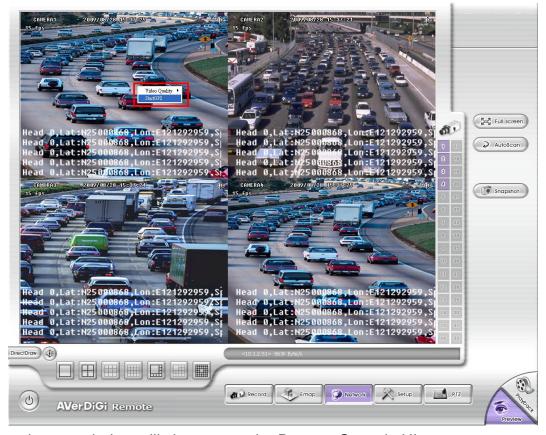
- 6. After installed Google Earth, double click the KML file that user has saved before.
- 7. The Google Earth will automatically activate and load the KML file.
- 8. User can view the actual location of recorded file according to the GPS data that MOB DVR has recorded.

### ■ Remote Console

In Remote Console UI, user can enable GPS function to view the MOB DVR server location on the Google map according to the GPS data that is received from GPS device has installed on the MOB DVR system.

Follow the below steps to view the GPS data from the remote site.

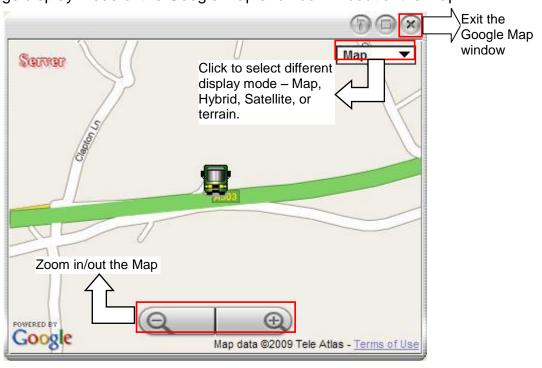
- 1. Starting the Remote Console application (see Chapter 8.1 #(8)).
- 2. After connect to the MOB DVR server, right-click on the screen and select **StartGPS**.



3. The Google map window will show up on the Remote Console UI.



4. User can change display mode of the Google map and zoom in /out of the map.



### ■ CMS(Center Management System)

If user has monitored the MOB DVR server, user can view the GPS data on Monitor. Also, user can view the location of MOB DVR server according the GPS data on the Google map.

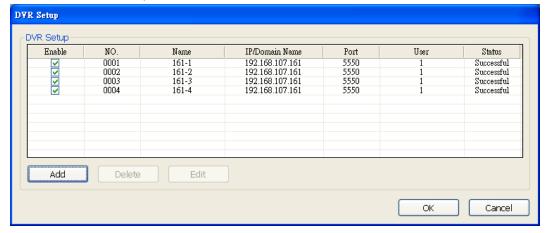
### Display the GPS Data on the Monitor:

Follow the below steps to display the GPS data on the Monitor center.

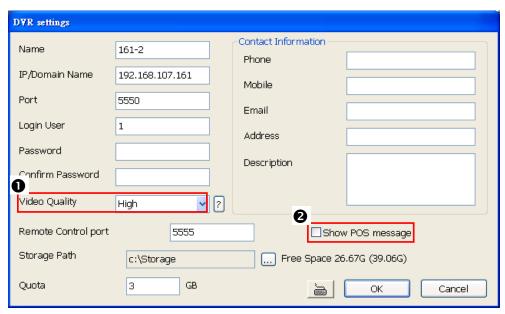
- Run the CMS application on your PC. For more detail of CMS application, please refer to CMS user's manual.
- 2. Click **Setup** in CMS Center interface.
- 3. Enter the password for authentication. When CMS configuration selection appears, click **DVR**.



4. In *DVR Setup* window, select the MOB DVR server or add the MOB DVR server (please refer to the CMS user's manual).



5. After selected the MOB DVR server, click Edit. The DVR Setting window will appear.



- 6. Select the **Video Quality** to **High**, and then, mark the **Show POS message** to display the GPS data on the Monitor.
- 7. Click **OK** to save and complete the change.
- 8. If the MOB DVR server hasn't been added any channels for monitoring, please refer to **Chapter 4.3** of the CMS user's manual to add the channels for monitoring.
- 9. Click **Monitor** to switch to the Monitor mode. User should see the GPS data display on Monitor UI as following shown:



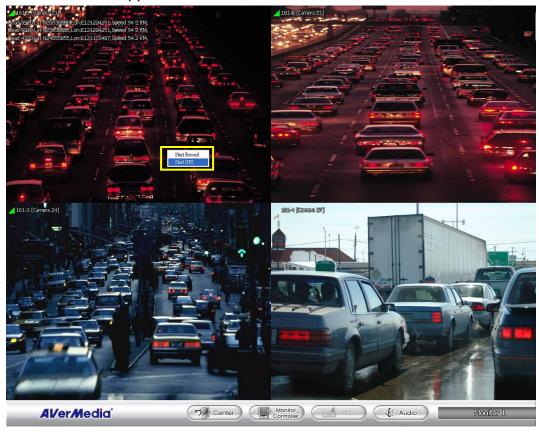
Position of the GPS data display relate to the setting of **Monitor Text Setting** in the *System setting* of the CMS.



### Viewing the GPS Data on the Google Map:

Following the below steps to view the GPS data on the Google Map.

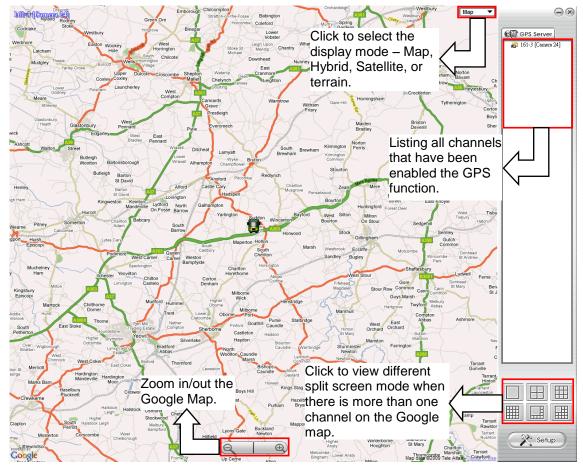
- 1. In the Monitor mode, right-click on the channel that is monitored from MOB DVR server.
- 2. The shortcut menu will appear. And then, select the Start GPS.



3. The Google Map window will show up.



4. Click on **Maximum** button to enlarge the *Google Map* window.



Setting Dialog

Dialog mode

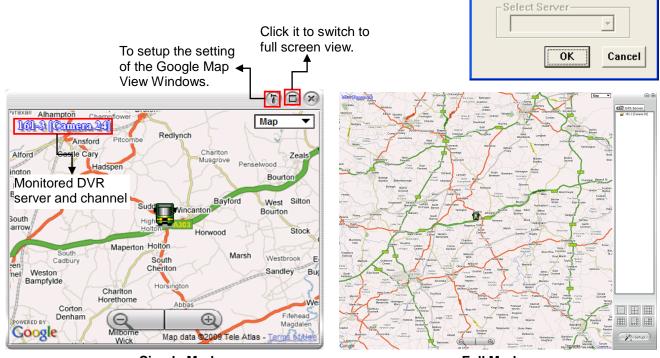
• Full mode

Map mode

C Simple mode

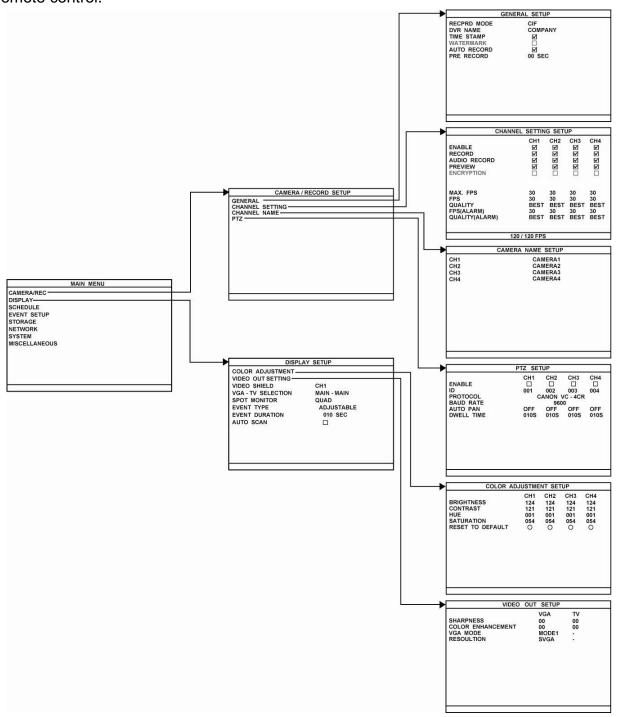
☐ All DVR in one map.

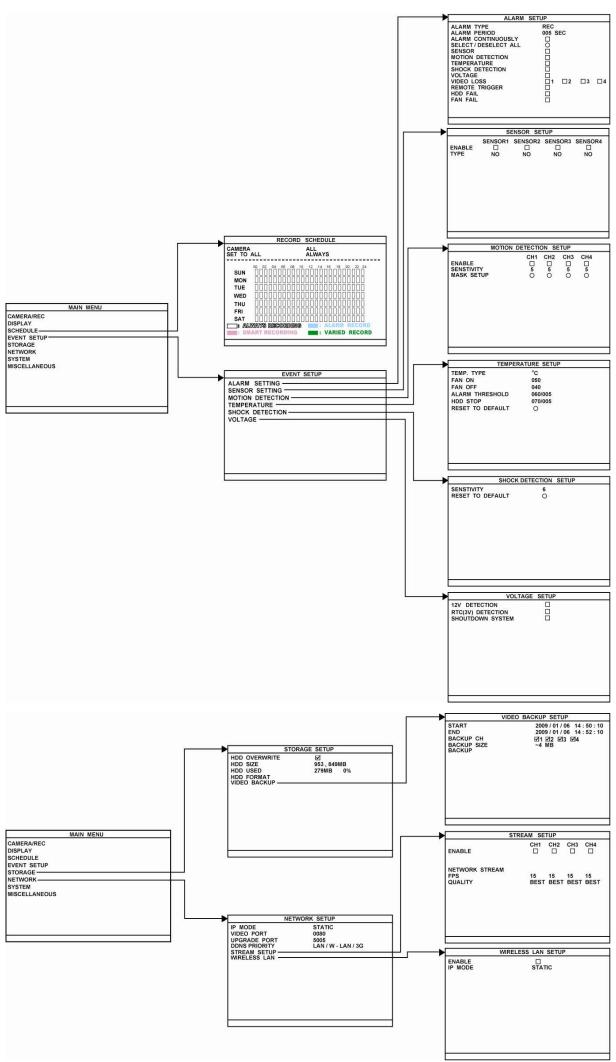
- 5. Click **Setup** to setup the setting of the *Google Map* window.
  - Dialog mode: the way of the display of the Google Map windows. User can select the server from Select Server list in Simple mode.
  - **Map Mode:** Mark **All DVR in one map** will enable all channels display on one Google Map window.
- 6. To exit the Google Map, click X.

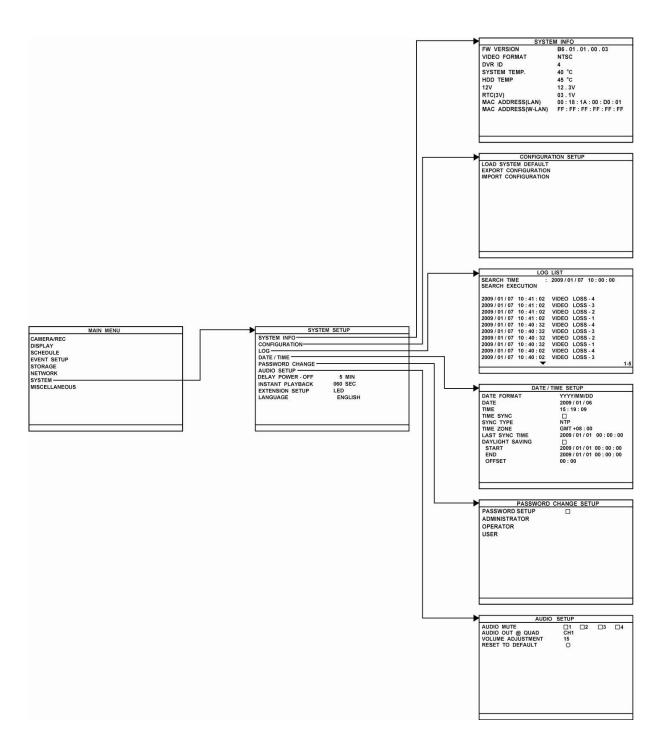


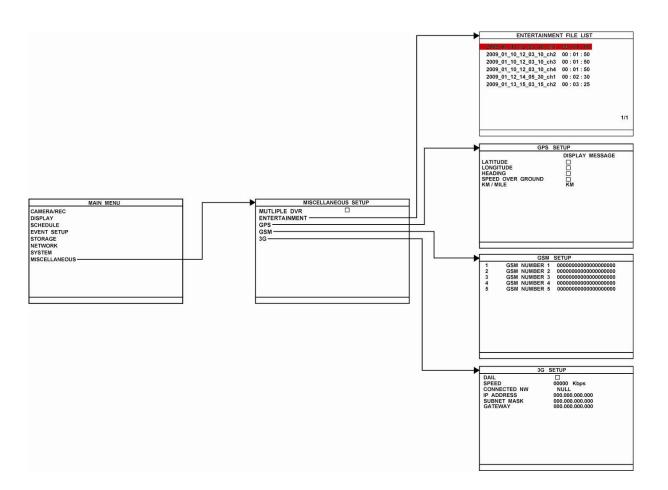
### **Chapter 3** OSD Navigation Tree

The follow figure is an OSD menu tree map. To call out the OSD menu, press button on the remote control.









### 3.1 Menu Function

To navigate in the OSD menu, press to call up and exit from the main menu or sub-menu display. Then use and buttons to go up and down and select the items in the menu list or change the settings. Use button to enter sub-menu or make a selection. User also can use and buttons to move the selection to the left and right.



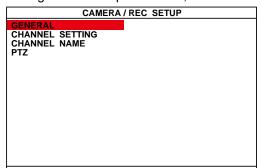
If the unit is currently recording the video, user may have to stop video recording to change the settings.

# MAIN MENU CAMERA/REC DISPLAY SCHEDULE EVENT SETUP STORAGE NETWORK SYSTEM MISCELLANEOUS

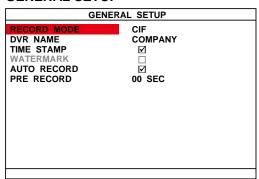
### **Description**

### CAMERA/REC

Configure camera parameters, name and PTZ camera.



### **GENERAL SETUP**



### **RECORD MODE**

Select D1/CIF/D1 Enhance recording mode.

Under **D1** mode, the video recording is in full screen resolution and takes turns from one channel to the next one when Auto Scan enables. Each channel is recorded only at a maximum frame rate of 15fps. User can switch to view the video in single full screen or QUAD screen. Whereas in **CIF** mode, video recording is at a lower resolution, but each video is recorded in 30fps/25fps (NTSC/PAL). User can switch to view the video in single full screen or QUAD screen

### **DVR NAME**

Assign a name for the DVR unit. Maximum is 10 characters may contain A~Z, 0~9, !, ", #, \$, %, &, ', (, ), \*, +, -, /, :, ;, <. >, ?, @, and space.

### **TIME STAMP**

Enable/disable the time and date display on the each channel.

### **AUTO RECORD**

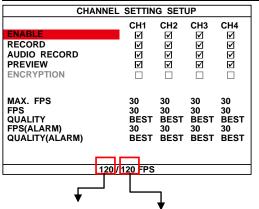
Enable/disable auto continue recording when interrupted (i.e., power breakdown, video playback or configuration setup). It starts to record after 5 second of idleness. This is applicable in Always Record mode.

### GENERAL SETUP RECORD MODE DVR NAME TIME STAMP WATERMARK AUTO RECORD PRE RECORD OUTDOOR OF THE PROPERTY OF T

### Description

### PRE RECORD

Set the pre-recording time in seconds when alarm has occurred.



Total fps value that

user can set

Current total fps

value that user

has set

### **CHANNEL SETTING**

Configure the parameters of each channel.

### **ENABLE**

Enable/disable the channel to display the video on the surveillance screen. If the channel is disabling, there won't be any video display and recording.

### **RECORD**

Enable/disable the channel number to record video.



The channels that are enabled in the **INSTALLATION** can be set for video recording.

### **AUDIO RECORD**

Enable/disable audio recording. To record sound, make sure the audio input device (ex: microphone) is connected to the DVR unit.

### **PREVIEW**

Enable/disable the video preview on the surveillance screen.

### MAX. FPS

Display the maximum frame rate of recording that user can configure. Maximum fps total value depends on the **RESOLUTION** that user has chosen.

### **FPS**

Set the number of frames per second to be recorded. The higher the frame rate, it uses more hard disk space.

### **QUALITY**

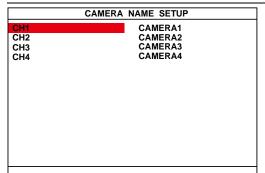
Select the video quality setting from BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

### FPS(ALARM)

Set the number of frames per second to be recorded when alarm has occurred. The higher the frame rate, it uses more hard disk space.

### QUALITY(ALARM)

Select the video quality (BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW) of alarm recording. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.



### **CHANNEL NAME**

Give a name for the channel 1 ~ 4. Maximum is 12 characters and may contain A~Z, 0~9, !, ", #, \$, %, &, ', (, ), \*, +, -, /, :, ;, <. >, ?, @, and space.

### OSD MENU PTZ SETUP CH1 CH<sub>2</sub> CH4 П П 004 002 003 001 PROTOCOL CANON VC - 4CR BAUD RATE AUTO PAN DWELL TIME 9600 OFF OFF OFF OFF 0108 0108 0108 0108

### **Description**

### **PTZ SETUP**

To enable PTZ camera control by remote control and setup PTZ camera parameters.

### **ENABLE**

Select the channel of PTZ camera. If the PTZ camera is connecting on channel 1, then select the camera 1 for PTZ video to be display on channel 1.

### ID

Assign an ID to PTZ camera. The ID range is from 000 to 255 but is limiting by protocol of PTZ camera. Please refer to your PTZ camera user's manual for more detail of PTZ ID assignment.



We suggest assigning PTZ camera ID star from 5 to avoid conflict with ID of camera channels.

### **PROTOCOL**

Select the protocol of PTZ camera. The protocol will be different that depends on the brand of PTZ camera. The DVR system currently supports 3 protocols — PELCO-D, PELCO-P, and CANON VC-C4R. Please refer to your PTZ camera user manual to make sure which protocol is using for.

### **BAUD RATE**

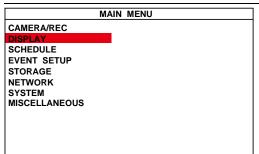
To setup the baud rate of PTZ camera. For more detail, please refer to your PTZ camera's user manual.

### **AUTO PAN**

Select the preset number to assign an auto move direction for the PTZ camera. For example: 1-4 means the PTZ camera will auto move from preset position 1, 2, 3 to 4.

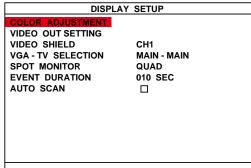
### **DWELL TIME**

Set a time that how long the PTZ camera stays in that position before it moves to the next one.



### **DISPLAY**

Configure the parameters of video and setting of spot monitor.

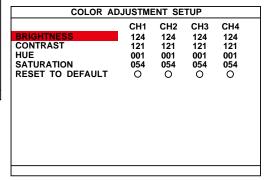


### DISPLAY SETUP COLOR ADJUSTMENT VIDEO OUT SETTING VIDEO SHIELD CH1 VGA - TV SELECTION MAIN - MAIN SPOT MONITOR QUAD EVENT DURATION 010 SEC AUTO SCAN

### Description

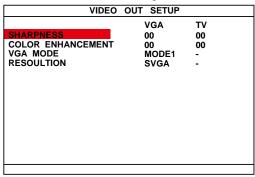
### **COLOR ADJUSTMENT**

To adjust the brightness, contrast, hue, and saturation value of channel video. To reset the setting, select **RESET TO DEFAULT VALUE**.



### **VIDEO OUT SETTING**

To select the sharpness, color enhancement, VGA mode, resolution of VGA and TV out setting.



### **SHARPNESS**

Adjust the sharpness of VGA and TV video output.

### **COLOR ENHANCEMENT**

Adjust the color enhancement of VGA and TV video output.

### **VGA MODE**

Select the VGA output mode.

### **RESOLUTION**

Select the resolution of VGA video output.

### **VIDEO SHIELD**

Select the channel and set an area that will be blocking for particular security issue when DVR unit is recording such as enter password for entrance guard.



# DISPLAY SETUP COLOR ADJUSTMENT VIDEO OUT SETTING VIDEO SHIELD VGA - TV SELECTION SPOT MONITOR EVENT DURATION AUTO SCAN DISPLAY SETUP CH1 WAIN - MAIN QUAD EVENT DURATION O10 SEC

### **Description**

### **VGA - TV SELECTION**

Select the VGA and TV output order.

- MAIN MAIN: Both VGA and TV output surveillance video on screen.
- **MAIN SPOT:** VGA output surveillance video and TV output the alarm event video.
- **SPOT MAIN:** VGA output alarm event video and TV output the surveillance video.

### **SPOT MONITOR**

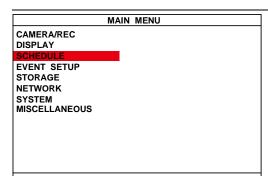
To select the display mode (**QUAD** or **Channel** (1, 2, 3, or 4)) on spot monitor when there is no alarm event.

### **EVENT DURATION**

Set a time gap ( $10 \sim 999$  seconds) before switch back to preview screen mode after display the alarm event.

### **AUTO SCAN**

Enable/disable auto cycle switch to display the next channel when in full screen mode.



### **RECORD SCHEDULE**

By default, in 24 hours, the recording schedule is set to always record every hour. Refer to the table below to customize the recording condition.

Condition	Description
ALWAYS	Record non-stop.
SMART	Automatically switch to recorded at the frame rate of FPS(alarm) once an alarm is detected and if there is no motion, it records at the frame rate of FPS.  The Frame rate setting refers to CHANNEL SETTING.
ALARM	Start recording when the alarm is activated. The alarm activates status according to the setting in <b>ALARM SETTING</b> .

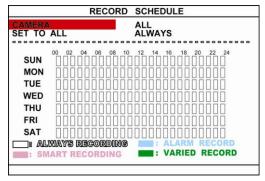
### **CAMERA**

Select a channel (1, 2, 3, or 4) or **ALL** for record schedule setup.

### **SET TO ALL**

Select a recording condition – **ALAWAYS**, **SMART** or **ALARM**. When each channel has different recording schedule, the time and date table will display as **Green** color (**VARIED RECORD**).

Please refer to the above table for record condition description.

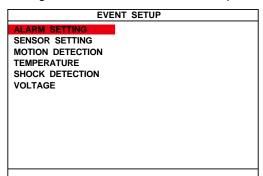


## MAIN MENU CAMERA/REC DISPLAY SCHEDULE EVENT SETUP STORAGE NETWORK SYSTEM MISCELLANEOUS

### Description

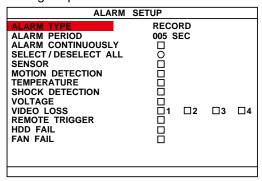
### **EVENT SETUP**

Configure alarm, sensor, motion, temperature, shock, and voltage.



### **ALARM SETTING**

Configure parameters of alarm.



### **ALARM TYPE**

Select the way of alarming - REC, EMAIL, GSM, BUZZER, or RELAY.

### **ALARM PERIOD**

Set the amount of time (in seconds) to sending the alarm once triggered.

### **ALARM CONTINUOUSLY**

Enable/disable the alarm event continuously to display on the spot monitor until the next alarm event is coming in.

### SELECT/DESECLECT ALL

Enable/disable all below selection.

### **SENSOR**

Enable/disable to send out the alarm if sensor has been triggered according to the setting of **SENSOR SETTING**.

### **MOTION DETECTION**

Enable/disable to send out the alarm if motion has been detected according to the setting of **MOTION DETECTION**.

### **TEMPERATURE**

Enable/disable to send out the alarm when temperature has exceeded the limit that user has setup.

### SHOCK DETECTION

Enable/disable to send out the alarm when MEMS has exceeded the range that user has setup in **SHOCK SETUP**.

### **VOLTAGE**

Enable/disable to send out the alarm when 12V VOLTAGE and RTC DETECTION has been enabled in VOLTAGE SETUP.

### **OSD MENU** Description ALARM SETUP **VIDEO LOSS** REC 005 SEC ALARM PERIOD ALARM PERIOD ALARM CONTINUOUSLY SELECT / DESELECT ALL SENSOR MOTION DETECTION TEMPERATURE MEMS VOLTAGE VIDEO LOSS REMOTE TRIGGER HDD FAIL FAN FAIL Select the channel that will send out the alarm when video is lost. **REMOTE TIRGGER** Allow user to trigger alarm from remote site. **HDD FAIL** □3 □4 □2 Enable/disable to send out alarm when hard disk is failed. **FAN FAIL** Enable/disable to send out alarm when fan is broken or doesn't start/stop when temperature is over/lower the limit.

EVENT SETUP
ALARM SETTING
SENSOR SETTING
MOTION DETECTION
TEMPERATURE
SHOCK DETECTION
VOLTAGE

### **SENSOR**

Customize the initial state of the attached sensor.

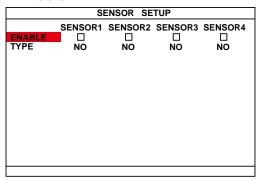
### **ENABLE**

Active/deactivate the sensor.

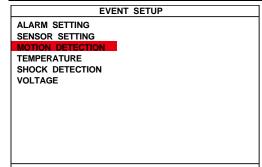
### **TYPE**

Select the state of the sensor.

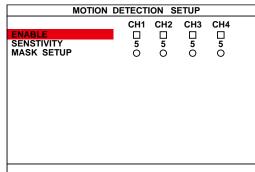
- NO: Indicates that the initial state of the sensor is normal open.
   Video recording initiates when there is a changes in the sensor state.
- NC: Indicates that the initial state of the sensor is normal close.
   Video recording initiates when there is a changes in the sensor state



### OSD MENU Description



### **MOTION DECTECION**



### **ENABLE**

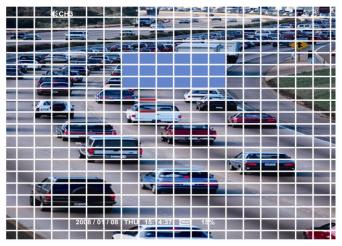
Enable/disable the channel to detect motion.

### **SENSITIVITY**

Set the sensitivity level. The sensitivity is from HI (High), 9~ 2 and LO (Low).

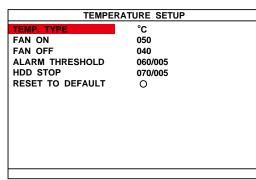
### **MASK SETUP**

Select a specific area for motion detecting. The DVR system will start recording when the selected area has been detected motion and the *MOTION DETECTION* has been enabled in **ALARM SETTING**.



### EVENT SETUP ALARM SETTING SENSOR SETTING MOTION DETECTION TEMPERATURE SHOCK DETECTION VOLTAGE

### **TEMPERATURE**



### TEMP. TYPE

Temperature pattern display on front LCM panel.

### **FAN ON**

Set a specific temperature limit for fan active. When the hard disk temperature reaches temperature limit, the fan will be active.

### **FAN OFF**

Set a specific temperature limit for fan stop. When the hard disk temperature reaches temperature limit, the fan will be stop.

# TEMPERATURE SETUP TEMP. TYPE °C FAN ON FAN OFF ALARM THRESHOLD HDD STOP RESET TO DEFAULT °C 050 060/005 070/005 RESET TO DEFAULT O

### Description

### **ALARM THRESHOLD**

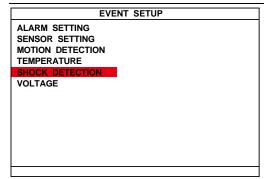
Set the temperature high/low limit ( $0\sim100^{\circ}\text{C}/55\sim95^{\circ}\text{C}$ ) to prevent DVR unit overheating/overcooling. When DVR unit temperature reaches the high/low limit, the system will show the warning message or send out alarm if the alarm is connected and set.

### **HDD STOP**

Set a specific temperature high/low limit (70 ~100°C /55 ~ 95°C) for HDD shutdown. When the hard disk temperature reaches the temperature limit, the HDD will shutdown.

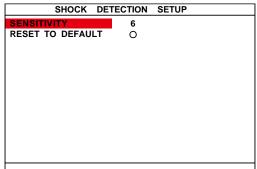
### **RESET TO DEFAULT**

Set all configurations back to factory default.



### SHOCK DETECTION SETUP

Set the sensitivity level for vehicle slope detection.

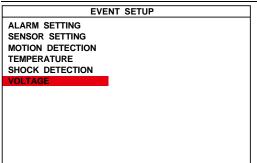


### **SENSTIVITY**

Set the sensitivity level of the shock detection.

### **RESET TO DEFAULT**

Set all configurations back to factory default.



### **VOLTAGE SETUP**

VOL	TAGE SETUP	
VOL  12V DETECTION  RTC(3V) DETECTION SHOUTDOWN SYSTEM	TAGE SETUP	

### **12V DETECTION**

Enable/disable voltage detection of total power supply of DVR system.

### **RTC(3V) DETECTION**

Enable/disable voltage detection for RTC(real time clock).

### SHOUTDOWN SYSTEM

Enable/disable to shutdown system when the voltage threshold reaches the limit.

### **OSD MENU Description** MAIN MENU STORAGE SETUP CAMERA/REC DISPLAY To format hard disk and backup recorded video to external USB **SCHEDULE** storage device(pen drive or external hard disk) **EVENT SETUP** STORAGE SETUP NETWORK ☑ 953 , 849MB SYSTEM MISCELLANEOUS HDD SIZE HDD USED 279MB HDD FORMAT VIDEO BACKUP **HDD OVERWRITE** Enable/disable replacing the earliest recorded file when the hard disk space runs out. By default, the HDD overwrite setting is enabled. **HDD SIZE** Shows the total capacity of the hard disk. HDD USED shows the amount of space that has been used.

**HDD FORMAT** 

To format hard disk:

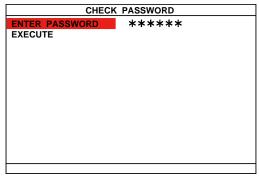
hard disk.

For security purpose, you may have to enter the password to format

HDD FORMAT. Then press (4).

2. In the CHECK PASSWORD screen, press . Then use the and buttons to select the security combination number (Default password is 111111). Press button again to make the selection.

3. To move the selection to the left and right, use , and buttons.



- 4. After entering the last number, the "PASSWORD CORRECT" appears, you are now authorized to format the hard disk.
- 5. It is done when the "FORMAT DISK SUCCESS" appears.



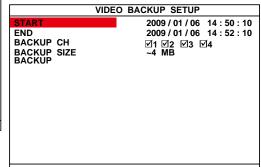
Formatting the hard disk will permanently delete all the recorded files. The recorded files will be no longer for retrieving.

### 

### **Description**

### **VIDEO BACKUP**

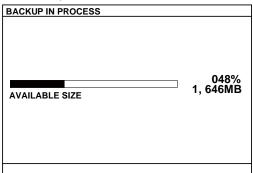
To backup the recorded video by selected period.



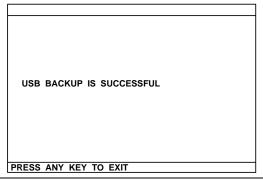


Please plug the pen drive or external hard disk into DVR system before starting backup process.

- 1. Select the **START TIME** and **END TIME** of backup.
- 2. Select the channels which user wants to backup in **BACKUP CH**.
- 3. Select the **BACKUP SIZE** to calculate the size of selected backup file.
- 4. And then, select **BACKUP** and press **YES** (**ENTER**) to start backup video



5. When backup is done, press any key to back to main menu.

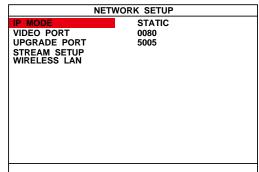


### MAIN MENU CAMERA/REC DISPLAY SCHEDULE EVENT SETUP STORAGE NETWORK SYSTEM MISCELLANEOUS

### **Description**

### **NETWORK SETUP**

Setup the network parameters for the internet or intranet remote monitor or playback.



### IP MODE

The system provides 3 types of IP setup mode – STATIC, DHCP, and PPPOE.

- **STATIC:** Assigns a constant IP address for the DVR system.
- DHCP: Assign the IP address by local DHCP server to DVR system.



The DHCP (Dynamic Host Configuration Protocol) is a set of rules used by a communications device (such as a computer, router or networking adaptor) to allow the device to request and get an Internet address from a server which has a list of addresses available for assignment

 PPPOE: Point-to-Point Protocol over Ethernet is a network protocol for encapsulating PPP frames in Ethernet frames. It is used mainly with ADSL services. If your network is using ADSL service connecting to internet, and then, select PPPOE mode.

### **VIDEO PORT**

A port for the remote connection. Any port can be assigned as a video port, except the ports already used by the network services. The default video port is 80.

### **UPGRADE PORT:**

A port for the remote update DVR system firmware. Any port can be assigned as an upgrade port, except the ports are already used by the network services. The default upgrade port is 5005. <u>For Upgrading DVR firmware, please contact your local dealer</u>.



Please **DO NOT** cut off the power of the DVR system while the firmware is upgrading. Power failure will cause the permanent damage of the DVR system.

### **OSD MENU** NETWORK SETUP STATIC 0080 IP MODE VIDEO PORT UPGRADE PORT 5005 **ENABLE** WIRELESS LAN

### **Description**

### STREAM SETUP

Configure the network stream of channel.

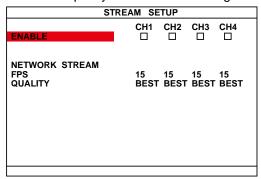
Enable/disable the stream setup of channel.

### **FPS**

Set the frame rate of stream.

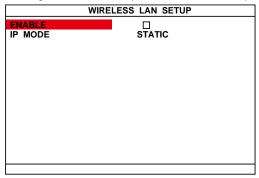
### **QUALITY**

Select the quality for stream recording.



### **WIRELESS LAN**

To enable the wireless and select the IP mode of wireless. The detail setting of the WLAN, please refer to Chapter 8.1.1.5



### **ENABLE**

Enable/disable the wireless function.

### **IP MODE**

Select the IP mode of wireless - STATIC or DHCP.

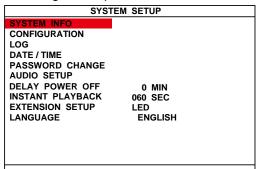
- STATIC: Assigns a constant IP address for the DVR system.
- DHCP: Assign the IP address by local DHCP server to DVR system.

# MAIN MENU CAMERA/REC DISPLAY SCHEDULE EVENT SETUP STORAGE NETWORK SYSTEM MISCELLANEOUS

### **Description**

### **SYSTEM SETUP**

To configure the parameters that relate with DVR system.



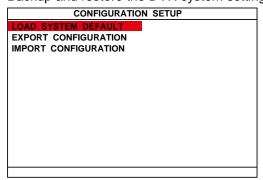
### SYSTEM INFO

Display system software version, video system type, ID of DVR, system and hard disk temperature, total voltage of power supply for all cameras, and RTC voltage.

	•
SYSTE	M INFO
FW VERSION	B6 . 01 . 01 . 00 . 03
VIDEO FORMAT	NTSC
DVR ID	4
SYSTEM TEMP.	40 °C
HDD TEMP	45 °C
12V	12 . 3V
RTC(3V)	03 . 1V
MAC ADDRESS(LAN)	00:18:1A:00:D0:01
MAC ADDRESS(W-LAN)	FF:FF:FF:FF:FF

### **CONFIGURATION**

Backup and restore the DVR system setting.



### **LOAD SYSTEM DEFAULT**

Set whole system back to factory default. Please restart DVR after default value has loaded.

### **EXPORT CONFIGURATION**

Backup the current DVR system setting to USB storage device such as pen drive or external hard disk. Plug in the USB storage device before starting to save the configuration.

### **IMPORT CONFIGURATION**

To restore the previous saved DVR system setting from USB storage device such pen drive or external hard disk. Please restart DVR after default value has loaded.

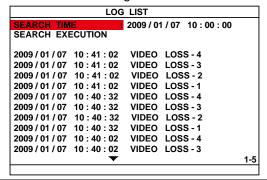
### SYSTEM SETUP SYSTEM INFO CONFIGURATION LOG DATE / TIME PASSWORD CHANGE AUDIO SETUP DELAY POWER OFF INSTANT PLAYBACK EXTENSION SETUP LANGUAGE SYSTEM SETUP 0 MIN 060 SEC EXTENSION SETUP LED ENGLISH

### **Description**

### **LOG SETUP**

To search event log.

Select the SEARCH TIME and select SEARCH EXECUTION to start searching. The search result will be list out. User can select the log to view but some of logs are not viewable.



### SYSTEM SETUP SYSTEM INFO CONFIGURATION LOG DATE / TIME PASSWORD CHANGE AUDIO SETUP DELAY POWER OFF 0 MIN INSTANT PLAYBACK 060 SEC EXTENSION SETUP LED LANGUAGE ENGLISH

### **DATE FORMAT**

Select the display format of the date -- YYYY/MM/DD, MM/DD/YYYY, or DD/MM/YYYY

### DATE

Set the current date

### TIME

Set the current time

### **AUTO SYNC TIME**

Enable/disable time synchronization automatically through network. The DVR system will auto synchronize time from NTP servers. When the daylight saving is enabling, the auto time synchronization will be stopped.

### TIME ZONE

Select the time synchronization time zone. The time zone will base on GMT (Greenwich Mean Time) time zone.

### LAST SYNC TIME

Display the latest time synchronization date and time.

### DAYLIGHT SAVING

To enable/disable daylight saving function.

### START

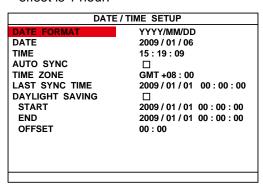
Setup daylight startup date and time.

### **END**

Setup daylight stop date and time.

### TIME OFFSET

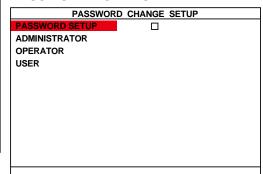
Assign a time that it is for daylight saving time offset in your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.



# SYSTEM SETUP SYSTEM INFO CONFIGURATION LOG DATE / TIME PASSWORD CHANGE AUDIO SETUP INSTANT PLAYBACK 060 SEC EXTENSION SETUP LED LANGUAGE ENGLISH

### Description

### PASSWORD CHANGE



Enable/disable full system password protection. This would prevent unauthorized user to stop video recording, change system settings and formatting the hard disk.

	<b>Default Password</b>	Authority
ADMIN	111111	All
OPERATOR	111111	Preview/Playback/Remote access(preview/playback)
USER	111111	Preview/Remote access(preview only)

### **ADMINISTRATOR**

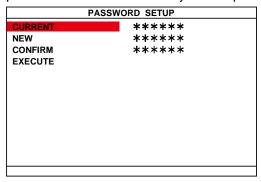
Administrator has the authority of formatting hard disk, changing system settings, remote monitor the DVR system and changes the system settings. The factory default password is 111111.

### **OPERATOR**

The login account for remote connection through the internet. User account only can view and playback recorded video by Web viewer (ex: Internet Explorer), but no authority to change the DVR system's setting. The factory default password is 111111.

### **USER**

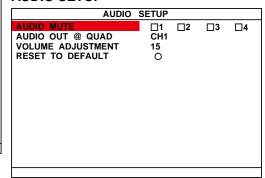
The login account for general user. No superuser authority but can preview live video. The factory default password is 111111.



## SYSTEM SETUP SYSTEM INFO CONFIGURATION LOG DATE / TIME PASSWORD CHANGE AUDIO SETUP INSTANT PLAYBACK EXTENSION SETUP LANGUAGE LED LANGUAGE SYSTEM SETUP 600 SEC EXTENSION SETUP LED LANGUAGE ENGLISH

### **Description**

### **AUDIO SETUP**



### **DELAY POWER OFF**

Set the time for DVR system to power off self after the vehicle has turn off the engine.

### **AUDIO MUTE**

Enable/disable to hear audio sound while preview or playback. To hear sound, make sure the unit is connected to a speaker.



If you want to hear the voice when you playback the recorded file on this DVR, please make sure that you have selected Audio Mute Off.

### **AUDIO OUT**

Select the channel to output the audio signal While QUAD mode. Please make sure the audio output device (such as a speaker) is connected to DVR unit.



Audio output device has its own power supply is necessary.

### **VOLUME ADJUSTMENT**

To adjust audio output volume.

### **RESET TO DEFAULT**

Set all configurations back to factory default.

### **INSTANT PLAYBACK**

To set the time in seconds for automatically playback the video that has just recorded.

### **EXTENSION SETUP**

The DVR unit provides a port to connect a extended line for system LED indicator or IR receiver. It is convenient for user to easily indicate the DVR unit status or remote control the DVR unit when the DVR unit is installed at hide place. Select LED for extended LED indicator line or IR for extended remote control receiver line.



The external LED indicator line is optional. The external IR receiver line is included in package contents.

### **LANGUAGE**

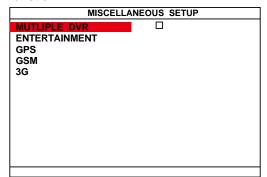
Select the current system language.

### OSD MENU MAIN MENU CAMERA/REC DISPLAY SCHEDULE EVENT SETUP STORAGE **NETWORK** SYSTEM

### **Description**

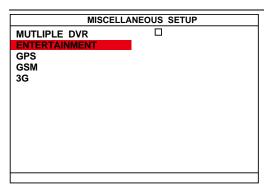
### **MISCELLANEOUS SETUP**

To setup multiple control, entertainment, GPS, GSM, and 3G function.



### MUTLIPLE DVR

Enable/disable multiple DVR system remote control. When user has more than one DVR system, user can use MULTIPLE DVR function to control all DVR system by single remote control.



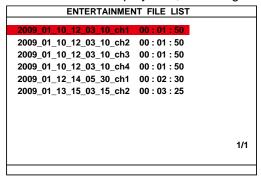
### **ENTERTAINMENT**

Backup recorded file to USB storage device and playback on MOB DVR. MOB DVR system only can recognize the file that backup from DVR and in \*.avf format.

- Create a folder name "avf" in the USB storage device and save the backup recorded file in avf folder.
- Plug the USB storage device into USB port of DVR.
- 3. Press (III) to call out OSD menu.
- 4. Select **SYSTEM** → **ENTERTAINMENT** and press (◄)



- 5. The recorded files have been detected by DVR system will display on screen.
- 6. Select the file and press (→) to start playback.
- 7. The DVR system will cycle switch to playback all files automatically. Between each file play, system will stop for 1~2 seconds.
- While the file is playback, recording is allowed.



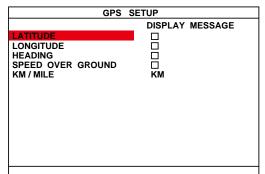
### MISCELLANEOUS SETUP MUTLIPLE DVR ENTERTAINMENT GPS GSM 3G

OSD MENU

### **Description**

### **GPS SETUP**

To enable/disable GPS information message display on surveillance screen.



### **LATITUDE**

Enable/disable to display latitude information on surveillance screen.

### **LONGITUDE**

Enable/disable to display longitude information on surveillance screen.

### **HEADING**

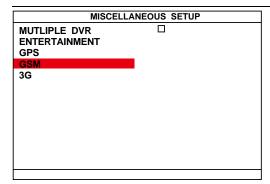
Enable/disable to display heading information on surveillance screen.

### **SPEED OVER GROUND**

Enable/disable to display speed information on surveillance screen.

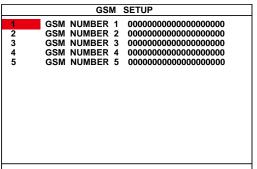
### **KM/MILE**

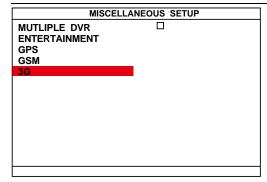
Select the distance format - KM(kilometer) or MILE



### **GSM SETUP**

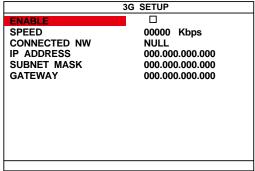
To setup the GSM numbers to receive the alarm message if user has enable GSM alarming function in **ALARM SETUP**. Total 5 number sets can be entered.





### **3G SETUP**

Enable/disable to use 3G internet connection. After MOB DVR has connected to the 3G service provider, the related information will be display.



The dial number, ID, password setting of the 3G, please go to <a href="#">Chapter 8.1.1.5</a> to setup.

### **Chapter 4** Using the USB Playback Console

### 4.1 Recommended system requirements

Pentium®4 2.4GHZ or above
Windows®2000/ XP/Vista/7
DDR 256 MB
Graphic function must support DirectDraw
Audio card or built-in
Speaker
1 available USB2.0 port

### 4.2 Installing the USB Playback Console

To install the USB Playback Console:

 Place Installation CD into the CD-ROM drive. When the installation main screen appears, click Install USB Playback Console and then follow the on screen instructions



2. Select the language you prefer

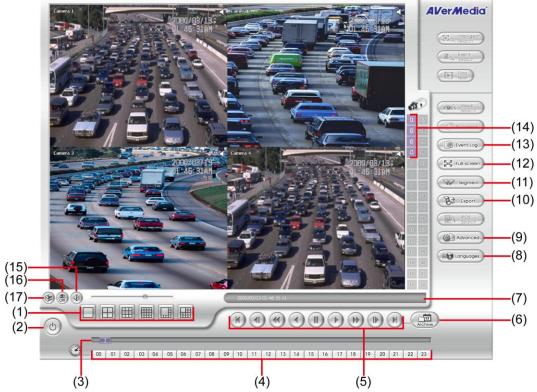


- 3. Click **OK** to install the application
- 4. Click **Exit** to close the installation main screen.
- 5. You may now connect the external USB storage device that has saved recorded files to PC.

### **Running the USB Playback Console**

To run the application, click the icon on the PC desktop





Name	Function
(1) Split Screen Mode	Select from different screen view to playback the recorded video file of the entire camera or one camera on screen.
(2) Exit	Close the application.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour button	Select and click to playback the recorded video file on the specific time frame.
(5) Playback Controller	Begin: Move at the beginning of the recorded video file.
	Previous: Go back to the previous frame by frame.
	<b>Slower:</b> Play the recorded video file at the speed of 1/2x,1/4x,1/8x,16x, or 1/32x
	Rewind: Wind back the recorded video file.
	Pause: Briefly stop playing the recorded video file.
	Play: Play the recorded video file.
	Faster: Play the recorded video file at the speed of 2x, 4x, 8x, 16x, or 32x.
	Next: Go to the next frame by frame.
	End: Go to the end of the recorded video file.

### **Function** Name To select the video file source for playing. (6) Archive Select File Type File Type for Playback ODVR Recorded File (HD) Backup File (.dvr) Backup File (.avf) ОК Cancel **DVR Recorded File (HD):** To playback the recorded video from the hard disk which was recording video on the DVR system. (see also Chapter 4.3.2) Backup File(.dvr): The file is backup and save in \*.dvr file format. (see also **Chapter 4.3.3)** Backup File (.avf): The file is backup and save to external USB storage device in \*.avf format. Select the file source folder and click **OK** to playback. (7) Status bar Display the recorded date, time and play speed. (8) Language To switch DVR application UI language. (9) Adv. Function Advanced function is including: HDD Backup: to call out HDD Backup application. (see also Chapter 5) **iEnhance:** to call out iEnhance application. ( see also Chapter 7) AVF to AVI: save \*.avf file format into \*.avi file format. Realtime GPS: To view the GPS data of the DVR on the Google map. Exit the Google Map Map window Click to select different display mode - Map, Hybrid, Satellite, or terrain. Zoom in/out the Map HD Eraser: To recover the damage of recorded file (HD Eraser function doesn't support in MOB1304 NET). (10) Export Export includes Snapshot, Print, Output Video Clip, and Export KML function. Snapshot: Capture and save the screen shot either in \*.jpg or \*.bmp format. Print: Print the screen shot. Output: Save the segmented video in \*.avi format. **Export KML:** Save the segmented video in \*.KML format and use the Google Earth to view the actually road direction from virtual map(see also Chapter 4.3.4) (11) Segment Keep a portion of the recorded video (see also Chapter 4.3.1) (12) Full screen Use the entire area of the screen to only display the video. To return, press the right button of the mouse or **ESC** on the keyboard. When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all. To select the recorded file that listed in Event List windows. (13) Event Log (14) Camera ID Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.

Turn on and off the sound

Increase and decrease the volume

(15) Sound /Sound bar

Name	Function
(16) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
(17) Watermark	<ul> <li>When playback *.dvr file, click watermark button to verify the correction of playback video.</li> <li>When playback file from hard disk and *.avf file, click watermark to call out ImageVerification application. (see also <a href="Chapter 6">Chapter 6</a>)</li> </ul>

### 4.3.1 To Cut and Save the Portion of the Recorded Video

 Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.



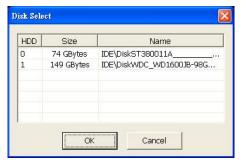
2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation, click **Segment** button again.



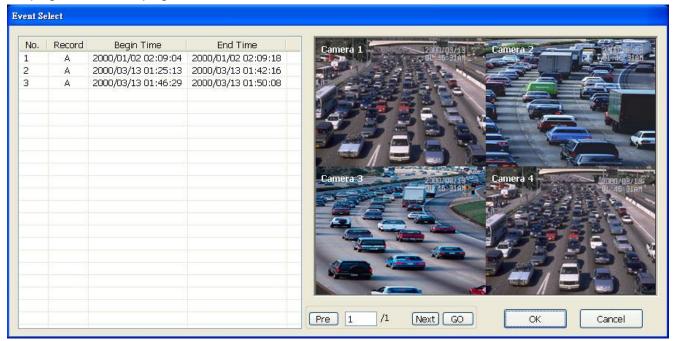
- 3. Click **Output** button to save the wanted portion.
- 4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format.

### 4.3.2 Playback DVR Recorded File from Hard Disk

- 1. Please have the hard disk which containing of recorded video data install on your PC or using external USB enclosure to connect to your PC.
- 2. Click Archive button
- 3. Select DVR Recorded File(HD) and click OK.
- 4. Select the hard disk drive from **Select Disk** window and click **OK**.



5. The Event List windows will appear and list all recorded file. Select the file and preview the selected file video. And then, click **OK** to start playback on UPC. To go to next page of recorded file list, click **Next**. To go back to previous page, click **Pre**. To go to the specific page, enter the page number and click **GO**.



### 4.3.3 Playback Backup File(\*.dvr)

- 1. Click Archive button.
- Select Backup File(\*.dvr) and click OK.
- Locate the backup file folder and click OK.

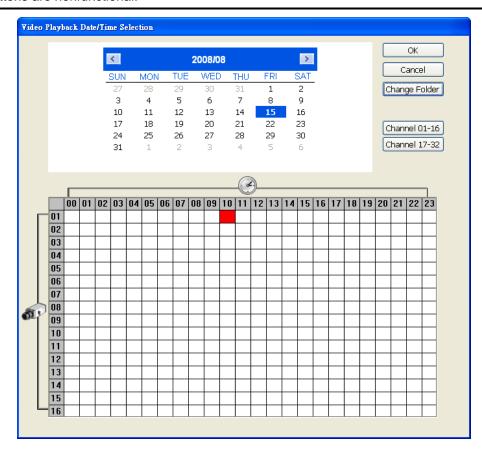


When open the backup video file, just locate the where backup file folder is.

- 4. Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.
  - Change Folder: To select different playback file form other folder location.
  - Channel 01~ 16&Channel 17 ~ 32: Switch to different channel group of playback calendar if the camera channel is more than 16 channels.



When channels of the DVR is less than 16 channels, the **Channel 01~16** and **Channel 17~32** buttons are nonfunctional.



### 4.3.4 View the KML File on Google Earth

1. Playback the recorded file from hard disk that is containing of recorded video data of MOB DVR(see also <a href="Chapter 4.3.2">Chapter 4.3.2</a>)



The recorder file must contain GPS data in order to save in \*.KML format and view on Google Earth.

- 2. During the playback, select a video segment that user wants to save in \*.KML file format (see also Chapter 4.3.1)
- 3. Click **Export** and select **Export KML** to save the video segment in \*.KML format.

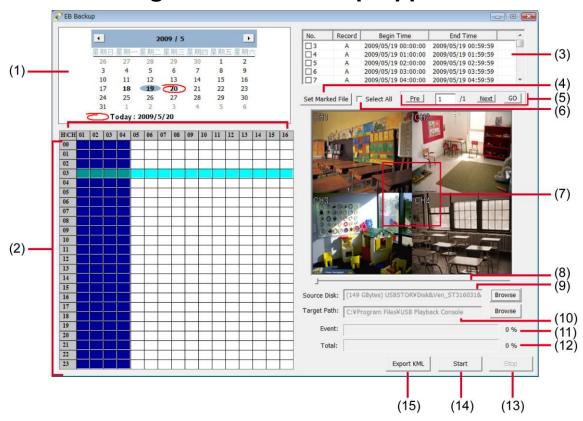


- 4. To install Google Earth, open the browser and enter <a href="http://earth.google.com">http://earth.google.com</a>. And download the Google Earth from the web page.
- 5. After installed Google Earth, double click the KML file that user has saved before.
- 6. The Google Earth will automatically activate and load the KML file.
- 7. User can view the actual location of recorded file according to the GPS data that MOB DVR has recorded.

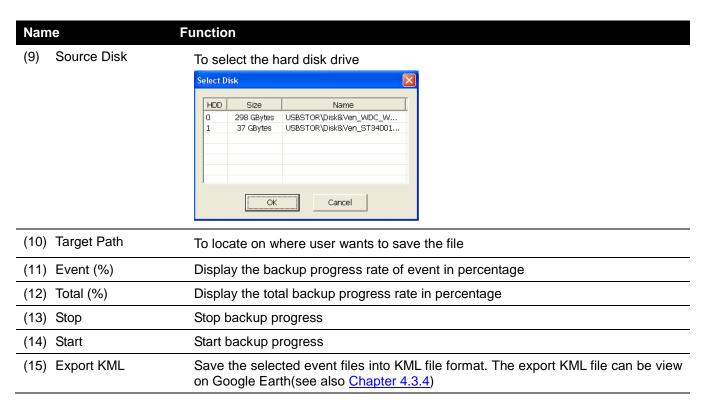
### **Chapter 5** Backup Recorded Video File

HDD Backup application provides user an interface to view recorded video from hard disk and backup it.

### 5.1 Familiarizing with HDD Backup Application

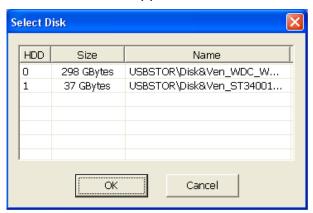


Nan	ne	Function
(1)	Date	Select the date for events
(2)	Hour and Channel	User can select the hour and channel for events.  : All events in this hour and channel have been selected.  : In this hour and channel has events  : Partial of events in this hour and channel has been selected.
(3)	Event list	All recorded video events list  No.: the list order number  Record: the record type(see also Chapter 2.4)  Begin Time: the beginning of record time  End Time: the end of record time
(4)	Set Marked File	Use <b>Ctrl</b> and mouse to select the multiple events from event list, and then click <b>Set Marked File</b> to mark multiple events. When click <b>Set Marked File</b> button, the marked event will turn to un-mark and un-mark event will turn to marked.
(5)	Page Switch	Pre: go back last page Next: go to next page Page column: enter the page number and click Go button to go to the page
(6)	Select All	Select all listed recorded video events. Click the check box again to cancel for selecting all events.
(7)	Video display	Display first frame of each recorded video channel from 4 selected.
(8)	Progress bar	Show the progress of the event being played. User may move the bar to seek at any location of the track



# 5.1.1 To Backup Recorded Video File

- Please have the hard disk which was recording video on the DVR system install on your PC or using external USB enclosure to connect to your PC.
- 2. To run the HDD Backup application, click the **HDD Backup** button on USB Playback Application main interface.
- 3. Click Browse in Source Disk to locate the recorded video file.
- 4. And then, the **Select Disk** windows will appear as below:



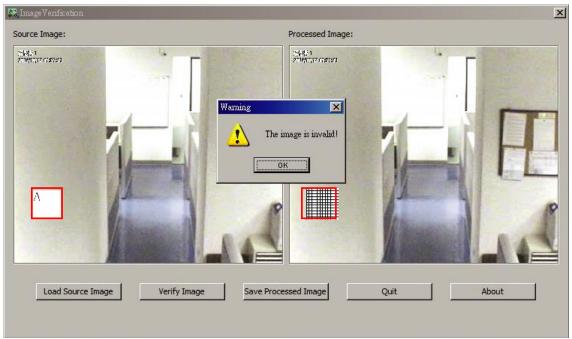
- 5. Select the hard disk drive from **Select Disk** windows. All available hard disk will list on the **Select Disk** windows with size and name.
- 6. Select the hard disk drive and click **OK**.
- 7. And then, all the recorded video files will list out.
- 8. Select the event which user wants to backup. Or mark the **Select All** to select all listed recorded video event.
- 9. Locate on where user wants to save the backup file.
- 10. Click **Start** to process backup.
- 11. To stop the backup progress, click **Stop**.
- 12. To play the backup file, see 4.3.3.

# **Chapter 6** ImageVerification

Image Verification is a watermark-checking program to identify the authenticity of a saved image (e.g. by snapshot). This program can only verify uncompressed bmp image files.

# 6.1 To Run the ImageVerification

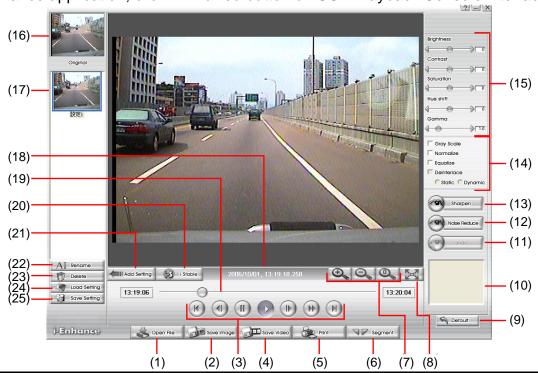
- 1. To run the ImageVerification application, click the **Watermark** button on USB Playback Application main interface.
- 2. In the ImageVerification screen, click Load Source Image and locate the image source.
- 3. Click **Verify Image** to begin the process.
- 4. Check the result in the **Processed Image** screen. If the picture is unmodified, the image in the **Source Image** and **Processed Image** screen would be exactly the same. If the picture is being modified, a warning dialog box would prompt and the modified area is highlighted.



# **Chapter 7** iEnhance

The bundled iEnhance is a video editing tool and can be used with \*.dvr and \*.avf video file. It allows you to adjust the video picture quality, segment and save the selected portion of the video, zoom in and out the image, and print or save the screen shot. You can also save the setting and apply it on other files.

To run iEnhance application, click iEnhance button on USB Playback Console interface.



Name	Function
(1) Open File	Access *.dvr and *.avf video file.
(2) Save Image	Capture and save the screen shot in *.bmp format.
(3) Playback Control	Begin: Move at the beginning of the video file.
Buttons	Previous: Go back to previous frame.
	Pause: Briefly stop playing the video file.
	Play: Play the video file.
	Faster: Play the video file at the faster speed.
	Next: Go to the next frame.
	End: Go to the end of the video file.
(4) Save Video	Save the edited or segmented video in *.avi format.
(5) Print	Print the screen shot.
(6) Segment	Mark the beginning and the end of the selected portion of the video. Two triangle marks will appear on the slider. To cancel video segmentation, click this button again.
(7) Zoom Buttons	Enlarge, reduce, and set the image back to normal size.
(8) Full Screen	Use the entire screen to only display the video.
(9) Default	Set the video back to original state and delete all the changes in the history box.
(10) History Box	List all the actions.
(11) Undo	Delete the last action.
(12) Noise Reduce	Adjust the softness and repair the damaged colors.
(13) Sharpness	Improve the overall image by enhancing edges. This gives the image more depth.

Name	Function
(14) Effects	Gray Scale: convert the image into black and white (monochrome).
	Normalize: adjust the brightness intensity.
	Equalize: automatically adjust the images that are too dark.
	De-interlace: smooth out the overlying frames.
	- Static: de-interlace for motionless scene.
	- <b>Dynamic:</b> de-interlace for moving scene.
(15) Picture Adjustment	Adjust the Brightness, Contrast, Saturation, Hue and Gamma.
(16) Original Screen	Display the original state of the image.
(17) Temporary Setting Block	Display the sample settings. Click the sample to apply the setting on the current video.
(18) Status Bar	Display the date, and time of the video.
(19) Progress Bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(20) iStable	To reduce the jolt in the recorded video.(also see Chapter 7.1)
(21) Add Setting	Include the new setting to the temporary setting block.
(22) Rename	Change the name of the selected setting in the temporary setting block.
(23) Delete	Permanently remove the selected setting in the temporary setting block.
(24) Load Setting	Call the saved settings.
(25) Save Setting	Store the settings in the temporary setting block.

# 7.1 To Use iStable

The iStable function can reduce the jolt in the recorded video.

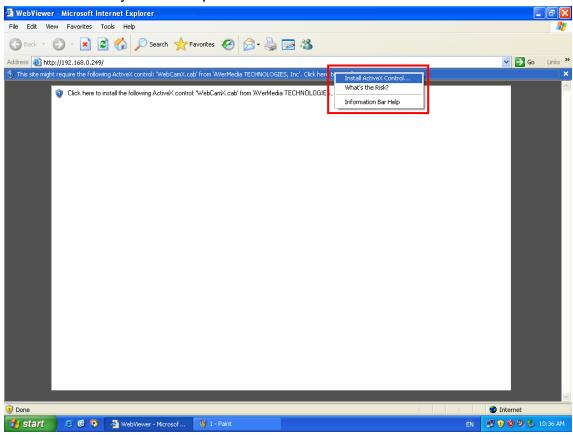
- 1. Click **Open File** button and select the recorded video.
- 2. And then, click iStable button.
- 3. iStable windows will show up.
- 4. Select the **smoothness** level 1(Low), 2, 3, 4, and 5(High). The default value is 3.
- 5. Click Play button, and then iStable function will start to initial the recorded video.
- When the initialize is done, user will see the original and stabilized recorded video play in two windows. The original video on the right side of window and the stabilized video on the left side of window.



# **Chapter 8** Using the Remote Programs

User can use Microsoft Internet Explorer to access DVR system by entering the IP address. To use this feature, make sure that your PC and DVR server both are connected to the internet and the Network feature is enabled.

Accessing this feature for the first time you will be prompted by your browser to install WebCamX.cab, allow the installation and you should be able to connect and login afterwards. Click to install ActiveX if your PC required to be installed.



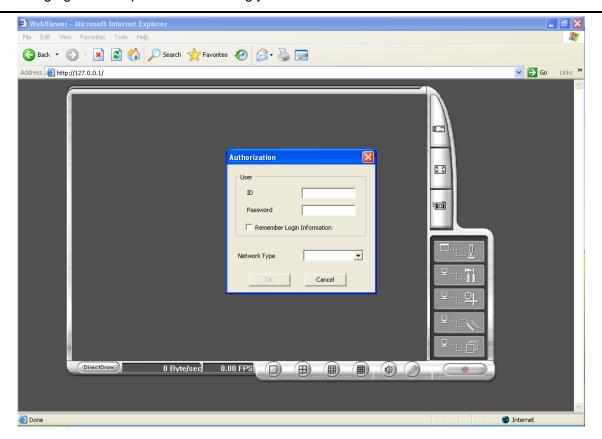
And then, Click **Install** when the Internet Explorer - Security Warning dialog box appears.



After installing the WebCamX.cab and when connecting to the DVR system, you are required to enter default account ID (default is **ADMIN**; case sensitive) and password (default is **111111**) and select the type of network.

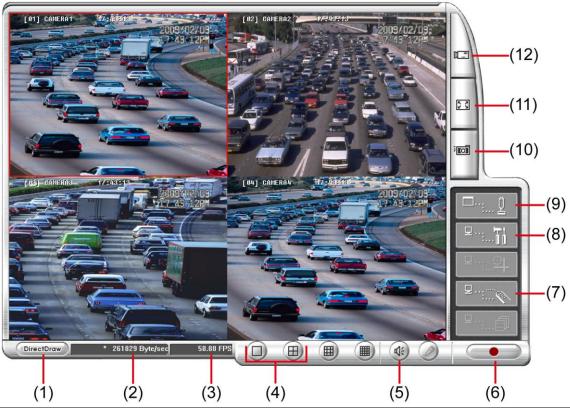


Changing account password is strongly recommended.



# 8.1 Familiarizing the WebViewer Buttons

Right-clicking on the WebViewer video screen, enables you to start video recording, switch camera and enable/disable DirectDraw.



Name		<b>Function</b>			
(1) DirectDra	W	Enhance the	video quali	ity.	



Not all graphic cards can support this function. If you cannot see the screen display correctly or screen is messed, please check with VGA card vendor.

messed, please	check with VGA card vendor.	
(2) Received file size	Indicate the size of the data being sent per second.	
(3) Camera frames	Indicate the number of frames per second.	
(4) Split screen view	Click to view one camera or all cameras on screen simultaneously.	
(5) Audio	Enable/disable remote sound.	
(6) Record	Start to record the video of the selected camera in AVI format. Directly click screen to select the channel that user wants to record and press <b>Record</b> button.	
(7) Remote Console	Initiate Remote Console. It allows you to control DVR server (see also Chapter 8.3).	
(8) Remote setup	Change the DVR server settings (see also Chapter 8.1.1).	
	System Camera Recording Alarm Network User	
(9) PTZ Control	Initiate PTZ camera controller(see also Chapter 8.2)	
(10) Snapshot	Capture and save the screen shot in *.bmp format.	
(11) Full screen	Use the entire area of the screen to only display the video.	
	To return, Right-click or press <b>ESC</b> on the keyboard.	

# Name Function

(13) Select cameras to view

Select to the view camera from different server. In Select Camera dialog box, Display column, click to enable/disable viewing the camera.

Click Add Server and select the server type between DVR and IP Cam to add.

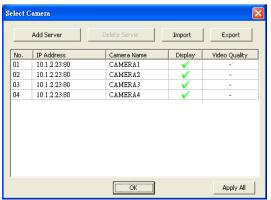
Click **Delete Server** to delete the selected item.

Click **Import** to load the previous saved list.

Click **Export** to save the list.

Click **Apply All** to change all the camera video quality based on the selected setting.

Click **OK** to exit.



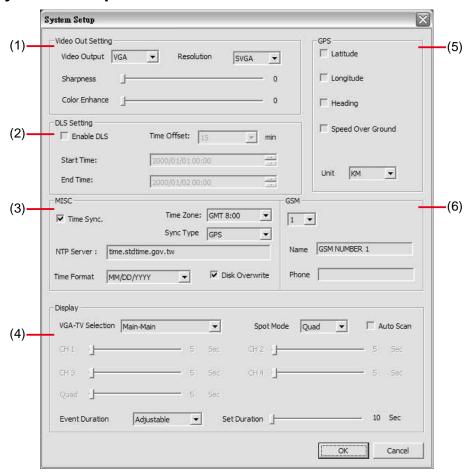
# 8.1.1 To Setup Remote System Setting

Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting. The setting here applies to Remote DVR system only.



After changed the DVR system setting, refresh your web browser in order to apply the new setting to the DVR system.

# 8.1.1.1 System Setup



# (1) Video Out Setting

- Video Output: Select the Video output to configure the value of Resolution, Sharpness and Color Enhance.
- Resolution: Select the video display resolution.
- Sharpness: Adjust the sharpness of display video.
- Color Enhance: Adjust the color enhancement of display video.

## (2) DLS Setting

Mark **Enable DLS** check box to enable daylight saving. And then, select the **Start** and **End Time** by click **setting**.

- **Time Offset:** Assign a time that it is for daylight saving time offset in your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.

# (3) MISC

- **Time Sync.:** Enable/disable Network Time Protocol to adjust the time of system from the network time server.
- **Time Zone:** Select the time zone of DVR located.
- **Sync Type:** Select the ways of the network time synchronize.
- NTP Server: Enter the URL of the network time server.
- **Time Format:** Select the format of time and date for the DVR system.
- **Disk Overwrite:** Enable/disable replacing the earliest record when the hard disk space runs out. By default, the HDD overwrite setting is enabled

# (4) Display

- **VGA-TV Selection:** Select the VGA and TV output order.
  - ✓ MAIN MAIN: Both VGA and TV output surveillance video on screen.
  - ✓ MAIN SPOT: VGA output surveillance video and TV output the alarm event video.
  - ✓ **SPOT MAIN:** VGA output alarm event video and TV output the surveillance video.
- **SPOT Mode:** To select the display mode (**QUAD** or **Channel** (1, 2, 3, or 4)) on spot monitor when there is no alarm event.
- **Auto scan:** Enable/disable auto cycle switch to display the next channel when in full screen mode.
- **Event Duration:** Select the type of event duration.
- **Set Duration:** Set a time gap (10 ~ 999 seconds) before switch back to preview screen mode after display the alarm event.

# (5) GPS

To enable/disable GPS information message display on surveillance screen.

## - LATITUDE

Enable/disable to display latitude information on surveillance screen.

# - LONGITUDE

Enable/disable to display longitude information on surveillance screen.

## - HEADING

Enable/disable to display heading information on surveillance screen.

# - SPEED OVER GROUND

Enable/disable to display speed information on surveillance screen.

## - Unit

Select the distance format – KM(kilometer) or MILE

## (6) GSM

To setup the GSM numbers for alarm inform if user has enable GSM alarming function in **ALARM SETUP**. Total 5 phone number set can be entered.

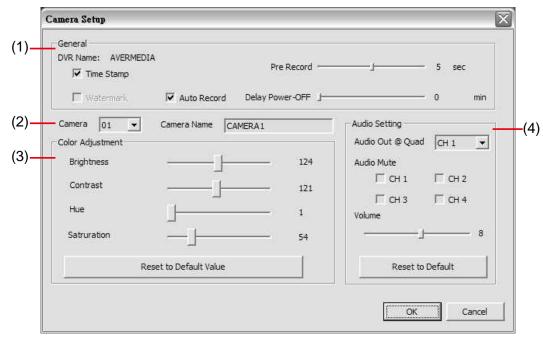
# - Name

Assign a name for this GSM number such as administrator's phone number.

# - Phone

Enter the number will be receive the alarm inform when the alarm event has occurred.

# 8.1.1.2 Camera Setup



# (1) General

# - Time Stamp

Enable/disable the time and date display on the each channel.

#### - Auto Record

Enable/disable auto continue recording when interrupted (i.e., power breakdown, video playback or configuration setup). It starts to record after 10 second of idleness. This is applicable in Always Record mode.

## - Pre Record

Set the pre-recording time in seconds when alarm has occurred.

# - Delay Power-OFF

Set the time for DVR system to power off self after the vehicle has turn off the engine.

# (2) Camera

Select the camera and enter a name for the camera.

# (3) Color Adjustment

Select the camera and adjust the **Brightness**, **Contrast**, **Hue** and **Saturation** of the selected camera. Click **Reset to Default Value** to set all video setting back to the default.

## (4) Audio Setting

Click **Reset to Default Value** to set all video setting back to the default.

#### - Audio Out @ Quad

Select the channel to output the audio signal While QUAD mode. Please make sure the audio output device (such as a speaker) is connected to DVR unit.

# - Audio Mute

Enable/disable to hear audio sound while playback. To hear sound, make sure the unit is connected to a speaker.

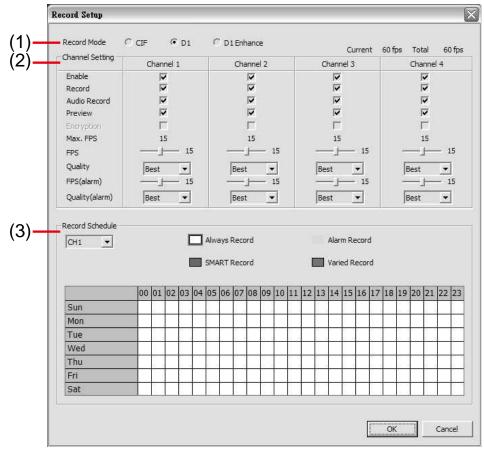


If you want to hear the voice when you playback the recorded file on this DVR, please make sure that you have selected Audio Mute Off.

## Volume

To adjust audio output volume.

# 8.1.1.3 Record Setup



# (1) Record Mode

Select D1/CIF/D1 Enhance recording mode. Under D1 mode, the video recording is in full screen resolution and takes turns from one channel to the next one when Auto Scan enables. Each channel is recorded up to a maximum frame rate of 30/25fps(NTSC/PAL). User can switch to view the video in full screen or QUAD screen. Whereas in CIF mode, video recording is at a lower resolution, but each video is recorded in 30fps/25fps (NTSC/PAL). User can switch to view the video in full screen or QUAD screen

# (2) Channel Setting

Setup parameters of each channel.

## - Enable

Enable/disable the channel to display the video on the surveillance screen. If the channel is disabling, there won't be any video display and recording.

# - Record

Enable/disable the channel number to record video.



The channels are enabled can be set for video recording.

## Audio Record

Enable/disable audio recording. To record sound, make sure the audio input device (ex: microphone) is connected to the DVR unit.

## Preview

Enable/disable the video preview on the surveillance screen.

#### Max. FPS

Display the maximum frame rate of recording that user has set. Maximum fps total value depends on the RESOLUTION that user has chosen.

## - FPS

Set the number of frames per second to be recorded. The higher the frame rate, it uses

more hard disk space.

# Quality

Select the video quality setting from BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

# - FPS(alarm)

Set the number of frames per second to be recorded when alarm has occurred. The higher the frame rate, it uses more hard disk space.

# - QUALITY(alarm)

Select the video quality (BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW) of alarm recording. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

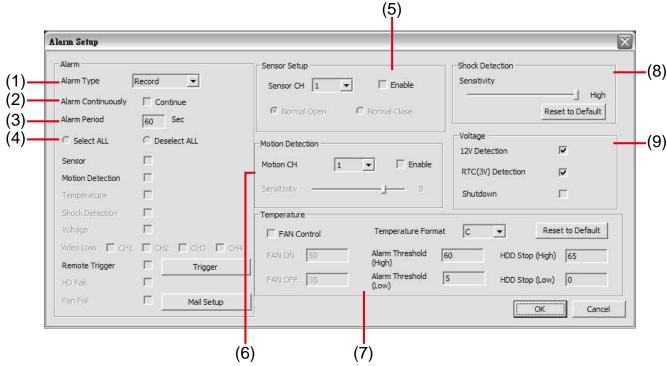
# (3) Record Schedule

By default, in 24 hours, the recording schedule is set to always record every hour. Refer to the table below to customize the recoding condition.

Condition	Description	
ALWAYS RECORD	Record non-stop	
ALARM RECORD	Start recording when the alarm is activated. The alarm activates status according to the setting in <b>ALARM SETTING</b> .	
SMART RECORD	Automatically switch to recorded at the frame rate of <b>FPS(alarm)</b> once an alarm is detected and if there is no motion, it records at the frame rate of <b>FPS</b> . The Frame rate setting refers to <b>CHANNEL SETTING</b> .	
VARIED RECORD	When each channel has different record schedule, the record schedule table will display in <b>Green</b> color that is indicated as <b>VARIED RECORD</b> .	

Select the channel to setup record schedule. Click the type of schedule and select hour (00~23) and click **OK** to complete the schedule setting.

# 8.1.1.4 Alarm Setup



# (1) Alarm Type

Select the way of alarming – REC, EMAIL, GSM, BUZZER, or RELAY.

# (2) Alarm Continuously

Enable/disable the alarm event continuously to display on the spot monitor until the next alarm event is coming in.

# (3) Alarm Period

Set the amount of time(in seconds) to sending the alarm once triggered.

# (4) Select/Deselect ALL

To enable/disable all below selection. Click **Mail Setup** button to setup the alarm mail sending.

#### Sensor

Enable/disable to send out the alarm if sensor has been triggered according to the setting of **SENSOR SETTING**.

# - Motion Detection

Enable/disable to send out the alarm if motion has been detected according to the setting of **MOTION DETECTION**.

# Remote Trigger

Allow user to trigger alarm from remote site.

## (5) Sensor

Enable/disable initial state of the attached sensor of the channel.

## (6) Motion Detection

Enable/disable the channel to detect motion.

## (7) Temperature

Click **Reset to Default** will back to factory default value.

# - Temperature Format

Select the temperature pattern display on front LCM panel.

#### FAN Control

Enable/disable to setup vale of fan on/off control.

## - FAN ON

Set a specific temperature limit for fan active. When the hard disk temperature reaches temperature limit, the fan will be active.

# - FAN OFF

Set a specific temperature limit for fan stop. When the hard disk temperature drop to the temperature low limit, the fan will switch to off if the fan was on.

# Alarm Threshold(High)

Set the temperature high limit (0 ~100°C) to prevent DVR unit overheating. When DVR unit temperature reaches the high limit, the system will show the warning message or send out alarm if the alarm is connected and set.

# Alarm Threshold(Low)

Set the temperature low limit ( $55 \sim 95^{\circ}$ C) to prevent DVR unit overcooling. When DVR unit temperature reaches the low limit, the system will show the warning message or send out alarm if the alarm is connected and set.

# - HDD Stop(High)

Set a specific temperature high (0 ~100°C) for HDD shutdown. When the hard disk temperature reaches the temperature limit, the HDD will shutdown.

# - HDD Stop(Low)

Set a specific temperature low limit ( $55 \sim 95^{\circ}$ C) for HDD shutdown. When the hard disk temperature reaches the temperature limit, the HDD will shutdown.

# (8) Shock Detection

Set the value for vehicle slope detection. Click **Reset to Default** will back to factory default value.

# (9) Voltage

# 12V Detection

Enable/disable to detect voltage for total power supply of DVR system.

# - RTC(3V) Detection

Enable/disable to detect for RTC (real time clock).

#### - Shutdown

Enable/disable to shutdown system when the voltage threshold reaches the limit.

## - Reset to Default

Set all configurations back to factory default.

# 8.1.1.5 Network Setup



## (1) IP Mode

The system provides 3 types of IP setup mode – STATIC, DHCP, and PPPOE.

- STATIC: Assigns a constant IP address for the DVR system.
- **DHCP:** Assign the IP address by local DHCP server to DVR system.



The DHCP (Dynamic Host Configuration Protocol) is a set of rules used by a communications device (such as a computer, router or networking adaptor) to allow the device to request and get an Internet address from a server which has a list of addresses available for assignment

- **PPPOE:** Point-to-Point Protocol over Ethernet is a network protocol for encapsulating PPP frames in Ethernet frames. It is used mainly with ADSL services. If your network is using ADSL service connecting to internet, and then, select PPPOE mode.

## (2) Remote audio record

Enable/disable the audio recording at remote site.

## (3) **DDNS**

Dynamic Domain Name Service is a data query service mainly used on the Internet for translating domain names into Internet addresses.

- Domain Name: Enter the domain name that user has registered.
- **Password:** Enter the password that user has setup when registered the domain name.

## (4) Wireless LAN

 SSID: SSID (Service Set Identity) is the ID assigned to the wireless AP (Access Point). Enter the ID of the wireless AP that user wants to connect.

- **Security:** Select the type of encryption WEP-64-PSK, WEP-128-PSK, WPA-TKIP-AES.
- Country Code: Then country code is depending on the regulatory region where the AP device is sold.



Please Make sure to enable wireless function first. Please go to OSD menu and select **Network** > **Wireless LAN**. And then, mark **Enable** check box and select the **IP Mode**.

# (5) WLAN IP Setting

ENABLE

Enable/disable the wireless function.

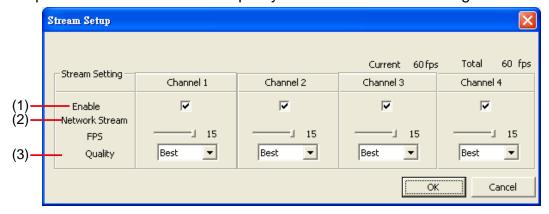
- IP MODE

Select the IP mode of wireless – STATIC or DHCP.

- > STATIC: Assigns a constant IP address for the DVR system.
  - **DHCP:** Assign the IP address by local DHCP server to DVR system.

# (6) Stream Setup

Click it to setup each channel stream and quality for the remote site viewing.



## (1) Enable

Enable/disable the channel. If channel is disabled, the video stream will not been seen in remote site and transmitting to remote site.

## (2) Network Stream FPS

Set the stream FPS of channel. Scroll the bar to adjust the fps.

# (3) Quality

Select the quality of the channel.

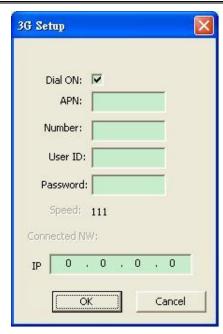
# (7) 3G Setup



- User needs to purchase the 3G USB Dongle in order to make a 3G connection. Please contact your local dealer for purchasing of 3G USB Dongle.
- Remember to plug 3G USB Dongle into the USB port of the MOB DVR.

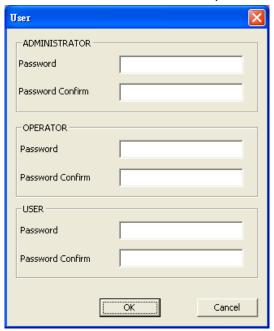
Setup parameters of the 3G. The following parameters are provided by user's 3G service provider when user apply 3G service.

- **Dial ON:** Enable/disable auto dial function.
- **APN:** The name used to identify a GPRS bearer service in the GSM mobile network.
- **Number:** Enter the number for dialing to your 3G service provider.
- **User ID:** Enter the ID for accessing authentication.
- **Password:** Enter the password for accessing authentication.
- Connected NW: The network that you has connected will be shown after 3G connection is successful.
- **IP:** The IP address is assigned by your 3G service provider after 3G connection is successful.



# 8.1.1.6 User Setup

To change Admin, operator, and user account's password. Enter the new password in **Password** and re-enter again in **Password Confirm**. Click **OK** to complete the change.



# 8.2 Familiarizing the WebViewer PTZ Buttons

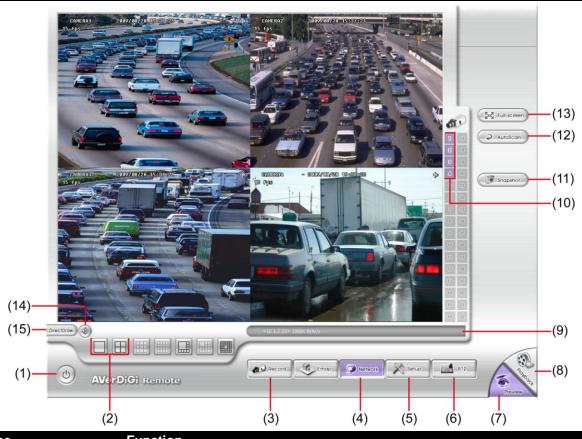


Name	Function
(1) Direction buttons	Adjust and position the focal point of the PTZ camera. Click the center to pan automatically.
(2) Zoom +/-	Zoom in and out the image.
(3) Select PTZ	Choose to enable/disable the PTZ camera. In the Select PTZ dialog box, Select column, click to enable/disable viewing and controlling the PTZ camera.  Click <b>OK</b> to exit and save the setting and <b>Cancel</b> to exit without saving the setting.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Auto Pan Groups	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(6) Camera preset position number	Move the PTZ camera to the preset point. The reset point (1~9) is based on the user has setup by remote control at local site.

# 8.3 Familiarizing the Remote Console Buttons



Right-click on the screen can enable GPS function (see also <u>Chapter 2.4.3</u>) if the remote MOB DVR server has installed the GPS device and enabled the GPS function.

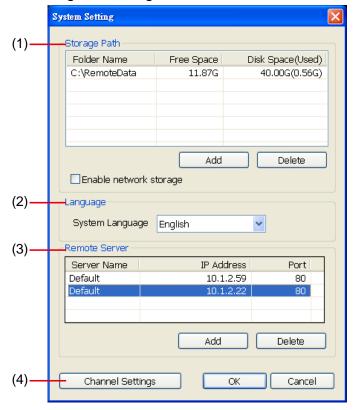


Name	Function		
(1) Exit	Close/minimize remote console application		
(2) Split Screen Mode	Select from 2 different split screen type to playback the recorded video file of all the cameras or one camera on the screen.		
(3) Record	Start/stop video recording.		
(4) Network	Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection.		
(5) Setup	Configure the Remote Console setting. (see also Chapter 7.2.1)		
(6) PTZ	To call out PTZ control panel for controlling PTZ camera.		
(7) Preview	Switch to Preview/Playback mode. This allows you to view live camera display.		
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see also Chapter 7.4)		
(9) Status Bar	Display the current date, time and hard disk free space.		
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.		
(11) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.		
(12) Auto Scan	Enable/disable channel auto cycle switch.		
(13) Full screen	Use the entire area of the screen to only display the video.  To return, Right click the mouse or press <b>ESC</b> on the keyboard.		
(14) Audio	Enable/disable the sound display		
(15) DirectDraw	Enhance the video quality.		

Direct Draw function supports for certain VGA card. For more information, please contact your VGA card vendor.

# 8.3.1 To Setup Remote Console Setting

Click **Setup** button to call out the **System Setting** windows. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



# (1) Storage Path

Set the directory on where to save the data. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path. By default the data is stored in C:\RemoteData, to insert another storage path, click **Add**. To remove the selected path, click **Delete**.

# - Enable network storage

Select the Enable network storage check box to send the recorded video in network attached storage.



To add network storage, the Internet storage drive/folder must be mapped as **Network Driver** in DVR server. To know how to assign or connect to a network drive, please refer to your Windows help file and search "**Map Network drive**".

## (2) Language

Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.

# (3) Remote Server

Enter the DVR Server IP and Server Port number that user wants to remote connect it.

## (4) Channel Settings

The numbers from 01 to 04 represent the camera ID. In **Transmitting Channels** section, enable the camera number to receive the camera signal from the server. In **Visible Channels** section, enable the camera number to view the camera signal on Remote Console screen. To select all the cameras, enable the **ALL** check box.



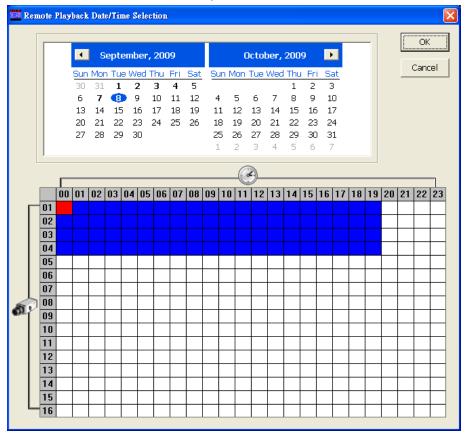
# 8.4 Using the Remote Playback

To use this feature, first switch to playback mode by clicking the **Playback** icon, and then, select the source of the file. In the **Select Playback Mode** dialog box, choose **Local Playback** to open the file that is recorded in the Remote Console, and **Remote Playback** to open the file that is recorded on the DVR server.

Click **OK** to proceed and **Cancel** to void this operation.



In the Remote Playback Date/Time Selection, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 04 represent the camera number.

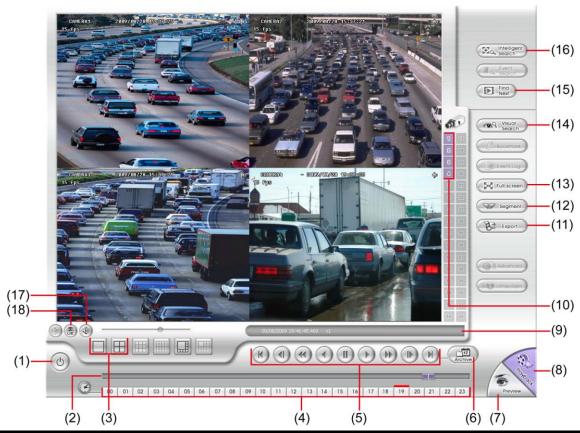


## To Make a Selection:

- Select the date in the calendar. Use and ▶ buttons to shift the calendar to the left or right.
- 2. In the table below, click on the blue block to select and open the recorded file. The blue block turns red when it is selected. The block that appears in white doesn't have data. You can only select one block when you choose Download and Playback.
- 3. Click **OK** to proceed and **Cancel** to void this operation.
- 4. The system divides the selected hour into 16 video thumbnails. In the Time Selection screen, click on the video thumbnail you want to download (see also <a href="Chapter 8.4.3">Chapter 8.4.3</a>).



# 8.4.1 Familiarizing the Local Playback Buttons



## Name

#### **Function**

(1) Exit

Click to exit or minimize the application. The password is required for exit or minimize.



(2) Progress bar

Show the progress of the file being played. You may move the bar to seek at any location of the track.

(3) Split Screen Mode

Select from 6 different split screen type to playback the recorded video file of all the cameras, or one camera over the other or alongside on a single screen.



- If there are only 4 cameras, you won't be able to switch to 16, and 13 split screen mode.
- To zoom in an area on the screen, Right click and Drag a square on the area you want to enlarge. To back to normal view, right click the channel screen again.

#### (4) Hour Buttons

Select and click to playback the recorded video file on the specific time frame.



The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. If there is no recorded data within the hour, there will be no color bar on top of the hour button. While the red bar indicates that you are currently viewing the recorded video file.

# (5) Playback Control Buttons

Begin: Move at the beginning of the recorded video file.

**Previous:** Go back to the previous frame.

**Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, or 1/16x.

Rewind: Wind back the video file.

Pause: Briefly stop playing the recorded video file.

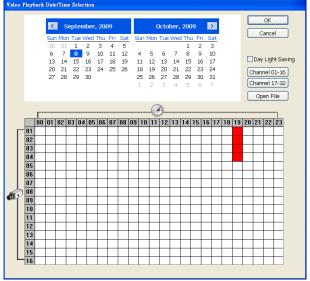
Play: Play the recorded video file.

**Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x.

**Next:** Go to the next frame.

End: Go to the end of the video file.

# Function Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. Also, user can open the recorded file from certain location by click OPEN FILE button Click Channel 01~16 and Channel 17~32 button to switch to different channel group of playback calendar if the DVR has more than 16 channels. Mark Day Light Saving, the playback calendar will show the available playback records during day light saving period.





The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. While the red colored column indicates on where to start playing the recorded video file. If there is no any video data, it will be no color bar on top of the date button.

(7) Preview	Switch to Preview mode.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the record date, time, HDD capacity in preview mode and play speed in playback mode.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	<ul> <li>Export includes Snapshot, Print, and Output function.</li> <li>Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format.</li> <li>Print: Print the screen shot.</li> <li>Output: Save the segmented file in *.avi format</li> </ul>
(12) Segment	Keep a portion of the recorded video you want (see also Chapter 8.4.1.1).
(13) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard.
(14) Event Log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(15) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also <a href="Chapter 8.4.1.2">Chapter 8.4.1.2</a> )
(16) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 8.4.1.3).
(18) Audio	Enable/disable audio play
(19) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

# 8.4.1.1 To Cut and Save the Wanted Portion of the Recorded Video

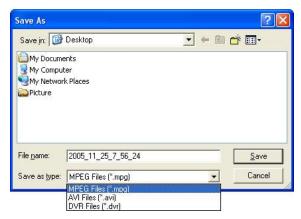
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.



2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click Segment button again.



- 3. Click **Export** >> **Output** button to save the wanted clip.
- 4. In the **Save As** dialog box, locate on where you want to save the file, type the filename, and select the video format.



# 8.4.1.2 To Search Using the Visual Search

- 1. Click Visual Search.
- 2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.



3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every 3Minutes of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click ... To view from the selected frame and close event search, click ...



# 8.4.1.3 To Search Using the Intelligent Search

- 1. Click on the video screen on where you want to search.
- 2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.



- 3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click
- 4. You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching. The search result will show as below figure:



# 8.4.2 Familiarizing the Download and Playback Buttons



Name	Function
(1) Exit	Click to close the application.
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Playback Control Buttons	Begin: Move at the beginning of the recorded video file.  Previous: Go back to the previous frame.  Slower: Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x or 1/16x.  Rewind: Wind back the recorded video file.  Pause: Briefly stop playing the recorded video file.  Play: Play the recorded video file.  Faster: Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x.
	Next: Go to the next frame.  End: Go to the end of the recorded video file.
(4) Status bar	Display the recorded date, time and play speed.
(5) Language	Switch the language of function/button tips
(6) Export	<ul> <li>Export includes Snapshot, Print, and Output function.</li> <li>Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format.</li> <li>Print: Print the screen shot.</li> <li>Output: Save the segmented file in *.mpg, *.avi, or *.dvr format.</li> </ul>
(7) Segment	Keep a portion of the recorded video. Follow the below steps to output a video clip:  1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click <b>Segment</b> to set the begin mark.  2. Use the Playback Control buttons or drag the bar on the playback progress bar and
	pause on where you want to end the cut. Then, click <b>Segment</b> to set the end mark. To cancel segmentation or set the segment marks from the start, click <b>Segment</b> button again.
	<ul> <li>3. Click Export button → Output to save the wanted clip.</li> <li>4. In the Save As dialog box, locate on where you want to save the file, type the filename, and select the video format.</li> </ul>

Name	Function		
(8) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard.  When you switch to full screen in multiple-screen mode, <b>Left</b> click to toggle to only display one of the video in the multiple-screen mode or all.		
(9) Event Log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.		
(10) Audio	Enable/disable volume		
(11) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement.		
(12) Watermark	To verify the playback video has not been modified.  Click stocheck the video. Watermark verification windows will show up as following:		
	Check Watermark		





Watermark verification doesn't support on hardware compression products and video that is recorded from IP camera.

# **Warranty Notice**

#### LIMITED WARRANTY

AVerMedia INFORMATION, Inc. warrants this product to be free of defects resulting from faulty manufacture or components under the following terms:

#### **WARRANTY LENGTH**

Labor is warranted for (1) one year from the date of purchase.

Parts are warranted for (1) one year from the date of purchase.

Replacement products will be warranted for the remainder of the one year warranty period or (30) thirty days, whichever is longer.

#### WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser.

#### WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

- 1. Any product on which the serial number has been defaced, modified, or removed.
- 2. Damage, deterioration, or malfunction resulting from:

Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.

Misapplication of service by someone other than the manufacturer's representative.

Any shipment damages. (Claims must be made with carrier.)

Any other cause which does not relate to a product defect.

- 3. Cartons, cases, batteries, cabinets, tapes, or accessories used with product.
- 4. AVerMedia does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose.

#### WHAT WE WILL AND WILL NOT PAY FOR

We will pay labor and material expenses for covered items. However, we will not pay for the following:

- 1. Removal or installation charges.
- 2. Shipping charges.
- 3. Any incidental charges.

#### **EXCLUSION OF DAMAGES**

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY IN TORT RELATING TO THIS PRODUCT OR RESULTING FROM ITS USE OR POSSESSION.

#### LIMITATIONS OF IMPLIED WARRANTIES

There are no other oral or written warranties, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. Any implied warranties are limited in duration to one year from the date of purchase.

#### STATE LAW AND YOUR WARRANTY

This warranty gives you specific legal rights, and you may also have other rights granted under state law. These rights vary from state to state.

#### **CONTACT INFORMATION**

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